ForumIAS



Prelims Marathon

March, 2022

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

Scheme/Programs/Institutions

Q.1) Consider the following statements about PM SVANidhi Scheme:

- 1. It has been launched by the Ministry of Social Justice.
- 2. SIDBI has been appointed as the implementation agency for scheme administration.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About PM SVANidhi Scheme:

PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) was launched by the Ministry of Housing and Urban Affairs in 2020 as a Central Sector Scheme. Its purpose is to facilitate affordable working capital loans of up to ₹10,000 with an interest subsidy @7% on regular repayment. The street vendors are not required to pay any collateral for the loan. SIDBI has been appointed as the implementation agency for scheme administration. The scheme targets to cover 50 lakh street vendors, who had been vending on or before March 24, 2020.

Source: EPIC September 2021

Q.2) Consider the following statements about INSPIRE Scheme:

- 1. It is managed by the Department of Science & Technology for the attraction of talent to science.
- 2. The scheme covers students in the age group of 10-32 years.

Which of the statements given above is/are correct?

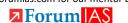
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About INSPIRE Scheme:

- INSPIRE is an innovative program sponsored and managed by the Department of Science & Technology for the attraction of talent to science.
- The objective of the scheme is to communicate to the youth of the country about the excitement of the creative pursuit of science, attract talent to the study of science at an early age.
- This will help build the required critical human resource pool for strengthening and expanding the Science & Technology system and R & D base.
- It believes in and relies on the efficacy of the existing educational structure for the identification of talent.
- The scheme covers students in the age group of 10-32 years and has three programs and five components. They are
 - Scheme for Early Attraction of Talents for Science (SEATS),
 - Scholarship for Higher Education (SHE)
 - Assured Opportunity for Research Careers (AORC).

Source: EPIC September 2021



Q.3) Consider the following statements about National Clean Air Programme (NCAP):

- 1. It has a target of 20% 30% reduction of Particulate Matter (PM10 and PM2.5) concentration by 2024.
- 2. The National Clean Air Programme was launched in 2019.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About National Clean Air Programme (NCAP):

- The National Clean Air Programme was launched in 2019.
- It is being implemented by the Ministry of Environment, Forest and Climate Change and CPCB.
- It is a comprehensive initiative in partnership with various Ministries and States to improve air quality at city, regional and national level.
- It is a focused and time bound scheme to implement various sectoral policies, strengthen monitoring and enhance public participation in more than 100 cities for effective air quality management.
- It has a target of 20%–30% reduction of Particulate Matter (PM10 and PM2.5) concentration by 2024.

Source: EPIC September 2021

Q.4) "SVAMITVA Scheme", recently seen in news is being implemented by which of the following institutions?

- a) Ministry of Panchayati Raj
- b) SEBI
- c) Ministry of Earth Science
- d) NITI Aayog

ANS: A

Explanation: About SVAMITA Scheme:

- The acronym SVAMITA stands for Survey of Villages and Mapping with Improvised Technology in Village Areas.
- It is a Central Sector Scheme (100% by Union Government) implemented by Union Ministry of Panchayat Raj
- It is aimed at "providing 'record of rights' to village household owners possessing houses in inhabited rural areas in villages and issuance of property cards to the property owners."
- The government aims to provide such property cards to each household in the next three to four years in every village across the country.
- The plan is to survey all rural properties using drones and prepare GIS based maps for each village.

Source: EPIC September 2021

Q.5) Consider the following statements with respect to Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP):

- 1. PMBJP campaign launched by Ministry of Health to provide quality medicines at affordable prices to the masses.
- 2. Bureau of Pharma PSUs of India (BPPI) is the implementation agency for PMBJP.

Which of the following above statements is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is a campaign launched by the Department of Pharmaceuticals to provide quality medicines at affordable prices to the masses.

- PMBJP stores have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- It was launched by the Department of Pharmaceuticals in November 2008 under the name Jan Aushadi Campaign.
- Bureau of Pharma PSUs of India (BPPI) is the implementation agency for PMBJP.

Source: ForumIAS factly

Q.6) Which of the following Multilateral Export-Control Regime is also called as London Club?

- a) Nuclear Suppliers Group
- b) MTCR
- c) Wassenaar arrangement
- d) Australia Group

ANS: A

Explanation: The Nuclear Suppliers Group (NSG) first met in November 1975 in London, and is thus popularly referred to as the "London Club". It is a Group of nuclear supplier countries that seek to prevent nuclear proliferation by controlling the export of materials, equipment and technology that can be used to manufacture nuclear weapons.

Source: The Hindu

Q.7) Consider the following statements about Sports Authority of India (SAI):

- 1. It is set up as a Society registered of Societies Act, 1860.
- 2. Sports Authority of India (SAI) was set up in 1984 to carry forward the legacy of the IXth Asian Games held in New Delhi in 1982

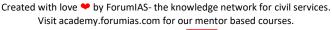
Which of the statement/s given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About SAI:

• Sports Authority of India (SAI) was set up in 1984 to carry forward the legacy of the IXth Asian Games held in New Delhi in 1982 under the Department of Sports.





- SAl has been entrusted with the twin objectives of promoting sports and achieving sporting excellence at the national and international level.
- SAI was set up as a Society registered of Societies Act, 1860.
- SAI has played a significant role in shaping India's sports development by providing training to elite athletes and at the same time operating a number of schemes for the identification and development of young talent.
- The schemes are being implemented through various regional centres and training centres of SAI spread throughout the country.
- In addition to that, a number of academic programmes in physical education and sports are also offered by SAI.

Source: The Hindu

Q.8) Consider the following statements about Organization for the Prohibition of Chemical Weapons (OPCW):

- 1. It is an intergovernmental organization and the implementing body for the Chemical Weapons Convention.
- 2. The OPCW is authorized to perform inspections to verify that signatory states are complying with the convention.
- 3. It was awarded the Nobel Peace Prize in 2013.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: About Organization for the Prohibition of Chemical Weapons (OPCW):

- OPCW is an intergovernmental organization and the implementing body for the Chemical Weapons Convention. This convention has been in force since 1997 and 193 members.
- **Aim:** To achieve the vision of a world free of chemical weapons by implementing the provisions of the Chemical Weapons Convention.
- Powers:
 - > The OPCW is authorized to perform inspections to verify that signatory states are complying with the convention.
 - It can also perform testing of sites and victims of suspected chemical weapons attacks.
 - **Headquarters:** The Hague, Netherlands.
 - Significance: The OPCW was awarded the Nobel Peace Prize in 2013.

Source: ForumIAS



Q.9) Which among the following is not published by International Labor Organization (ILO)?

- a) Global Wage Report
- b) World Social Protection Report
- c) World Employment and Social Outlook
- d) Industrial Development Report

ANS: D

Explanation: ILO's flagship publications:

- Global Wage Report
- World Social Protection Report
- World Employment and Social Outlook

Industrial Development Report is published by UNIDO (United Nations Industrial Development Organization)

Source: The Hindu

Q.10) Consider the following statements regarding the objectives of Revitalizing Infrastructure and Systems in Education (RISE) by 2022:

- 1. Qualitatively upgrade the research and academic infrastructure in India to global best standards by 2022.
- 2. To create separate Institutes of National Importance for girls.
- 3. To cater to the requirements of the Kendriya Vidyalayas and Navodaya Vidyalayas and medical institutions like AIIMSs in a faster time frame.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: B

Explanation: The RISE by 2022 is an attempt to translate the objectives into action plan by making available resources from the market. The objectives of RISE by 2022 are:

- Qualitatively upgrade the research and academic infrastructure in India to global best standards by 2022.
- Make India into an education hub by making available high quality research infrastructure in Indian higher educational institutions.
- To allow access of HEFA funding to institutions like Central Universities, AIIMS, IISERs and newly created Institutes of National Importance, without creating any additional burden to the students.
- To bring greater accountability and speed in execution of infrastructure projects and avoid all cost/time over-runs, moving from the block-grant mode to project-mode for all infrastructure projects.
- To cater to the requirements of the Kendriya Vidyalayas and Navodaya Vidyalayas, and medical institutions like AIIMSs in a faster time frame.

Source: Indian Express





Science and Technology

Q.1) Mosquirix, a new vaccine, recently seen in news would be used to treat which of the following diseases?

- a) SARS Covid-19
- b) Dengue
- c) Filariasis
- d) Malaria

ANS: D

Explanation: About Mosquirix:

A new vaccine "RTS,S/ASO1 (RTS.S)" with trade name "Mosquirix" was endorsed by the WHO. This is the first vaccine to have shown the capability of significantly reducing malaria. Mosquirix has been developed by British pharmaceutical company GlaxoSmithKline in partnership with the PATH Malaria Vaccine Initiative.

Source: EPIC October 2021

Q.2) Consider the following statements about Banni Buffalo breed:

- 1. It is a breed of buffalo found primarily in Haryana.
- 2. Banni Buffaloes has higher milk production potentials and is also more disease resilient.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: India's first In Vitro Fertilization (IVF) calf of Banni breed of buffaloes was born at a farmer's house in Gir Somnath district, Gujarat. It is a breed of buffalo found primarily in the Kutch district of Gujarat. Banni Buffaloes has higher milk production potentials and is also more disease resilient. They are also well-adapted to survive extreme weather conditions such as water scarcity, frequent droughts, low humidity and high temperatures. This is the reason they were chosen to multiply the population of genetically superior buffaloes, resulting in higher milk yield.

Source: EPIC October 2021

Q.3) NASA's Mission Lucy, recently seen in news will explore which of the following?

- a) Jupiter Trojan Asteroids
- b) Asteroid "Bennu"
- c) Asteroids Ceres and Vesta
- d) Asteroid "Ryugu"

ANS: A

Explanation: About Mission Lucy:

• Lucy is NASA's mission to explore the Jupiter Trojan Asteroids. It was launched on October 16 2021.





- It is a part of NASA's Discovery Programme focused on better understanding of planetary systems of the Solar System.
- The mission is named after 'Lucy', a 3.2 million-year-old ancestor who belonged to a species of hominins (which include humans and their ancestors).
- The mission is estimated to be over 12 years long, during the course of which the spacecraft will visit eight asteroids covering a distance of about 6.3 billion km to deepen the understanding of the "young solar system".

Dawn mission (NASA) orbited Ceres and Vesta the two largest worlds in the belt between Mars and Jupiter.

Hayabusa mission (JAXA-Japan) probed asteroid "Ryugu"

OSIRIS-REX (NASA) spacecraft probed asteroid "Bennu" and collected samples from there.

Source: EPIC October 2021

Q.4) "DigiSaksham" is a joint initiative by which of the following?

- a) Minister for Labour and Employment and TCS
- b) Minister for Labour and Employment and Microsoft India
- c) Ministry of Skill Development and Entrepreneurship and Microsoft India
- d) Ministry of Skill Development and Entrepreneurship and TCS

ANS: B

Explanation: Ministry for Labour and Employment has launched DigiSaksham - a digital skills programme to enhance the employability of youth by imparting digital skills that are required in an increasingly technology driven era. This joint initiative with Microsoft India is an extension of the Government's ongoing programs to support the youth from rural and semi-urban areas.

Source: EPIC October 2021

Q.5) Which of the following statement about Diabetes is/are not correct?

- a) Diabetes is a Non-Communicable Disease
- b) It occurs when the pancreas does not produce enough insulin
- c) Both a and b
- d) None

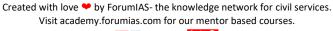
ANS: D

Explanation: About diabetes:

- Diabetes is a Non-Communicable Disease (NCD) that occurs either when the pancreas does not produce enough insulin (a hormone that regulates blood sugar, or glucose), or when the body cannot effectively use the insulin it produces.
- Type I diabetes: It mostly affects children of age 14-16 years. This type occurs when the body fails to produce sufficient insulin. They must take artificial insulin daily to stay alive.
- Type II diabetes: While the body still makes insulin, unlike in type I, the cells in the body do not respond to it as effectively as they once did. The population with 45 and above age group is the most affected with it.

This is the most common type of diabetes and it has strong links with obesity.

- Diabetes affects the five major organs Kidney, Heart, Blood vessels, Nervous System, and Eyes (retina).
- Responsible factors: Unhealthy diet, lack of physical activity, harmful use of alcohol, overweight/obesity, tobacco use, etc.





Source: ForumIAS

Q.6) Consider the following statements about Global Roadmap to Defeat Meningitis:

- 1. Meningitis is an inflammation of the membranes that surround the brain and spinal cord.
- 2. It aims to eliminate epidemics of bacterial meningitis by 2040.
- 3. It aims to reduce deaths by 70 per cent and halve the number of cases by 2030.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: C

Explanation: The Global Roadmap to Defeat Meningitis by 2030 was recently released by the World Health Organization (WHO) and its partners.

- This is the first-ever global strategy to defeat meningitis.
- It aims to eliminate epidemics of bacterial meningitis and to reduce deaths by 70 per cent and halve the number of cases.
- Significance: The strategy could save more than 200,000 lives annually and significantly reduce disability caused by the disease.

About Meningitis

- · Meningitis is an inflammation of the membranes that surround the brain and spinal
- It is predominantly caused by bacterial and viral infection.
- Meningitis caused by bacterial infection causes around 250,000 deaths a year and can lead to fast-spreading epidemics.
- It kills a tenth of those infected mostly children and young people and leaves a fifth with long-lasting disability.

Source: EPIC October 2021

Q.7) Consider the following statements:

- 1. INS Vikrant has been indigenously built by Cochin Shipyard for the Indian Navy.
- 2. Cochin Shipyard Limited is the only shipyard under the Ministry of Ports, Shipping and

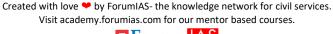
Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Vikrant

- Vikrant is India's most complex warship (aircraft carrier) to have been indigenously built by Cochin Shipyard for the Indian Navy.
- Cochin Shipyard Limited is the largest public sector shipyard and the only shipyard under the Ministry of Ports, Shipping and Waterways.
- Vikrant has more than 76% indigenous content.





- It is the first time in the country that a ship the size of an Aircraft Carrier is completely modeled in 3D and production drawings extracted from the 3D model.
- The IAC is the largest warship built in the country having a displacement of about 40,000 tonnes.
- The Aircraft Carrier is a mini floating city, with a flight deck area covering the size of two football fields.
- The vessel is named Vikrant after the decommissioned maiden carrier of the Navy.
- It will have an air component of 30 aircraft, comprising MiG-29K fighter jets, Kamov-31 airborne early warning helicopters and the soon-to-be-inducted MH-60R multi-role helicopter, besides the indigenous Advanced Light Helicopters.
- The shipborne weapons include Barak LR SAM and AK-630, while it has MFSTAR and RAN-40L 3D radars as sensors.
- At present, India has only one aircraft carrier, the Russian-origin INS Vikramaditya.

Source: ForumIAS

Q.8) U.S. scientists David Julius and Ardem Patapoutian have won the Nobel Medicine Prize 2021 for which of the following discovery?

- a) Covid-19 vaccination
- b) Receptors for temperature and touch
- c) Vaccine for malaria
- d) First successful pig to human heart transplant

ANS: B

Explanation: U.S. scientists David Julius and Ardem Patapoutian have won the Nobel Medicine Prize for discoveries on receptors for temperature and touch.

- The groundbreaking discoveries have allowed us to understand how heat, cold and mechanical force can initiate the nerve impulses that allow us to perceive and adapt
- The pair's research is being used to develop treatments for a wide range of diseases and conditions, including chronic pain.

Source: ForumIAS

Q.9) Ministry of Ayush has entered into an agreement with which of the following country undertake academic activities in the field of Ayurveda?

- a) Bhutan
- b) Germany
- c) Croatia
- d) Egypt

ANS: C

Explanation: Recently, paving the way for academic collaboration in India's traditional medicine systems, especially in the field of Ayurveda, between the two countries, the Ministry of Ayush has entered into an agreement with Croatia.

- The two sides will undertake academic activities in the field of Ayurveda in collaboration with the identified institutions.
- There will be close cooperation and collaboration on research, including study design and execution, developing evidence-based guidelines for integrating Ayurvedic





principles and practices with modern medicine, conducting lectures, workshops, seminars and conferences, and other such activities on Ayurveda.

- Both sides will also develop academic standards and courses in accordance with the needs of the institution, end users and stakeholders and develop Ayurvedic medical education guidelines for Ayurveda education in Croatia.
- This will promote academic research, clinical and educational activities, medical education, training, and competency building.

Source: ForumIAS

Q.10) Consider the following statements about Indian Space Association (ISpA):

- 1. It is an industry body consisting of various stakeholders of the Indian space domain.
- 2. One of the main goals of the organization is to supplement the government's efforts towards making India a global leader in commercial space-based excursions.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Prime Minister Shri Narendra Modi launched Indian Space Association (ISpA) in October, 2021.

- ISpA is the Premier Industry Association of Space and Satellite companies, which aspires to be the collective voice of the Indian Space industry.
- It will undertake policy advocacy and engage with all stakeholders in the Indian Space domain, including the Government and its agencies.
- ISpA will help in making India self-reliant, technologically advanced and a leading player in the space arena.
- ISpA is represented by leading home grown and global corporations with advanced capabilities in space and satellite technologies.

Source: ForumIAS





Location/IR/Geography

Q.1) Mount Manipur, recently seen in news is located at which of the following place?

- a) Andaman and Nicobar
- b) Manipur
- c) Sikkim
- d) Myanmar

ANS: A

Explanation: Mount Manipur:

- The Government of India has renamed Mount Harriet of Andaman and Nicobar (A&N) Islands to Mount Manipur.
- Mount Harriet is the third-highest island peak in the A&N Islands.
- It is the place where Manipur's Maharaja Kulchandra Singh and 22 other freedom fighters were imprisoned during the Anglo-Manipuri war (1891).
- Hence, Mount Harriet has been renamed as Mount Manipur to pay tribute to those freedom fighters of Manipur.
- The Anglo-Manipur War was an armed conflict between the British Empire and the Kingdom of Manipur.
- The war lasted between 31 March and 27 April 1891, ending in a British victory.
- This war also led to Manipur officially becoming a princely state under the indirect rule of the British crown.

Source: EPIC October 2021

Q.2) Exercise Indradhanush is a joint bilateral air exercise between which of the following pairs of nation?

- a) India and UK
- b) India and USA
- c) India and Australia
- d) India, UK and South Africa

Explanation: Exercise Indradhanush: It is a joint bilateral air exercise between India and the UK started in 2006.

Ajeya Warrior and other Indo-British Joint Exercises: The 6th Edition of India - UK Joint Military Training Exercise Ajeya Warrior was conducted at Chaubatia in Uttarakhand. The execution of joint military operations is done in a semi-urban environment. The exercise is part of an initiative to develop interoperability and sharing expertise with friendly foreign nations.

Passage Exercise (PASSEX): It was conducted between the Indian Navy and Royal Navy Carrier Strike Group to ensure that the navies are able to communicate and cooperate in times of war or humanitarian relief.

Exercise Konkan: It is also a bilateral maritime exercise between the Indian Navy and the Royal Navy of the UK. The Exercise aims to consolidate interoperability and help cement the strong bonds of friendship between the two navies.

Source: EPIC October 2021





Q.3) Consider the following statements about vertical farming:

- 1. In vertical farming, crops are grown indoors.
- 2. It does not require more energy.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About vertical farming:

- In vertical farming, crops are grown indoors, under artificial conditions of light and temperature.
- It aims at higher productivity in smaller spaces.
- It uses soil-less methods such as hydroponics, aquaponics and aeroponics.
- Vertical farming uses significantly less water and pesticides than traditional agricultural methods.
- Being indoors, the crops aren't subject to seasons and hence give high productivity

What are some issues associated with vertical farming?

- (1) Requires more energy and technology
- (2) High cost of input: Cameras and sensors gather millions of data points tracking the needs of the plants as they grow
- (3) Skilled human resource: This kind of hyper-controlled indoor agriculture requires an expensive labour force of engineers, plant scientists and computer programmers
- (4) Luxury good: Vertical farming also relies on urban real estate more expensive than rural farmland
- (5) High-tech agriculture is still high-risk: Because there is no soil or other barrier to protect the roots, even a small number of bacteria in the root chamber can harm the plants.

Source: EPIC October 2021

Q.4) 'Nord Stream Pipeline 2', recently seen in news, runs between which of the following countries?

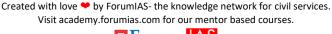
- a) Germany and Russia
- b) Russia and Ukraine
- c) Ukraine and Belarus
- d) France and Spain

ANS: A

Explanation: A 1224 km, underwater Nord Stream Pipeline 2 running from Germany to Russia across Baltic Sea has been completed. It provides the shortest, economical and environment friendly route to double Russia's gas export to Germany.

What is the utility of this pipeline?

- The NS2 has the capacity to transport 55 billion cubic meters of gas each year.
- It can also cover the needs of about 26 million households, and restock storage inventories.





- With the increase in European gas prices because of various reasons like severe winter, post covid economy surge, many industries and food supply chains are under stress.
- The pipeline is intended to provide Europe with a sustainable gas supply while providing Russia with more direct access to the European gas market.

Source: EPIC October 2021

Q.5) Consider the following statements about National Disaster Management Authority (NDMA):

- 1. NDMA is the apex statutory body for disaster management in India.
- 2. Home minister acts as its chairperson.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About National Disaster Management Authority (NDMA):

- NDMA is the apex statutory body for disaster management in India.
- The NDMA was formally constituted on 27th September 2006, in accordance with the Disaster Management Act, 2005.
- Composition: Prime Minister as its Chairperson and nine other members, and one such member to be designated as Vice-Chairperson.
- Mandate: Its primary purpose is to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response.
- It is also the apex body to lay down policies, plans and guidelines for Disaster Management to ensure timely and effective response to disasters.
- **Vision:** To build a safer and disaster resilient India by a holistic, proactive, technology driven and sustainable development strategy that involves all stakeholders and fosters a culture of prevention, preparedness and mitigation.

Source: EPIC October 2021

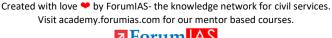
Q.6) Which of the following organisation/Institution has developed Geospatial Energy Map of India?

- a) ISRO
- b) Ministry of Power
- c) NITI Aayog
- d) Both a and c

ANS: D

Explanation: About Geospatial Energy Map of India:

- NITI Aayog in collaboration with Indian Space Research Organisation (ISRO) has developed a comprehensive Geographic Information System (GIS) Energy Map of India with the support of Energy Ministries of Government of India.
- Provides a holistic picture of all energy resources of the country which enables visualization of energy installations through 27 thematic layers





- Attempts to identify and locate all primary and secondary sources of energy and their transportation/transmission networks to provide a comprehensive view of energy production and distribution in a country.
- A unique effort aimed at integrating energy data scattered across multiple organizations and to present it in a consolidated, visually appealing graphical manner.
- Leverages latest advancements in web-GIS technology and open-source software to make it interactive and user friendly.
- Will be useful in planning and making investment decisions.
- Will also aid in disaster management using available energy assets.

Source: ForumIAS

Q.7) Consider the following statements about China-Pakistan Economic Corridor (CPEC):

- 1. It aims to link the Western part of China to the Gwadar Port in Balochistan, Pakistan.
- 2. It is not a part of Belt and Road Initiative.

Which of the statements given above is/are not correct?

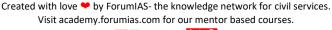
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About China-Pakistan Economic Corridor:

- The CPEC is a bilateral project between Pakistan and China.
- It is intended to promote connectivity across Pakistan with a network of highways, railways, and pipelines accompanied by energy, industrial, and other infrastructure development projects.
- It aims to link the Western part of China (Xinjiang province) to the Gwadar Port in Balochistan, Pakistan via Khunjerab Pass in the Northern Parts of Pakistan.
- It will pave the way for China to access the Middle East and Africa from Gwadar Port, enabling China to access the Indian Ocean.
- CPEC is a part of the Belt and Road Initiative. The BRI, launched in 2013, aims to link Southeast Asia, Central Asia, the Gulf region, Africa and Europe with a network of land and sea routes.
- India has been severely critical of the CPEC, as it passes through Pakistan-occupied Kashmir, which is a disputed territory between India and Pakistan.

Source: ForumIAS





Q.8) Consider the following statements about S-400 Triumf:

- 1. It is air-to-air missile system designed by Russia.
- 2. It is more dangerous than US-developed Terminal High Altitude Area Defense system (THAAD).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About S-400 Triumf anti-aircraft missile systems:

- The S-400 Triumf is a mobile, surface-to-air missile system (SAM) designed by Russia.
- It is the most dangerous operationally deployed modern long-range SAM (MLR SAM) in the world, considered much ahead of the US-developed Terminal High Altitude Area Defense system (THAAD).

Source: ForumIAS

Q.9) Recently a GI tagged sweet dish "Mihidana" has been exported to the Kingdom of Bahrain. The dish belongs to which of the following states?

- a) Andhra Pradesh
- b) Telangana
- c) West Bengal
- d) Assam

ANS: C

Explanation: In an effort to promote indigenous & Geographical Identification (GI) tagged products, first consignment of GI tagged sweet dish Mihidana sourced from Bardhaman, West Bengal has been exported to the Kingdom of Bahrain.

- Jaynagarer Moa: A century old sweet delicacy & GI certified Jaynagarer Moa, prepared from popped-rice ball & fresh date-palm jaggery, in found in Jaynagar, West Bengal too.
- West Bengal's Bardhaman got the GI tag for the century-old sweetmeats in 2017.

Source: ForumIAS

Q.10) Consider the following statements with respect to "Barail Range":

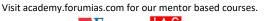
- 1. It is the highest hill range in Arunachal Pradesh.
- 2. The Barail Range is the watershed between the Brahmaputra and Manas rivers.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: The Barail is the highest hill range in Assam. It includes the North Cachar Hill Reserve Forest (RF) of Cachar district, Barail RF of Cachar and North Cachar Hills districts

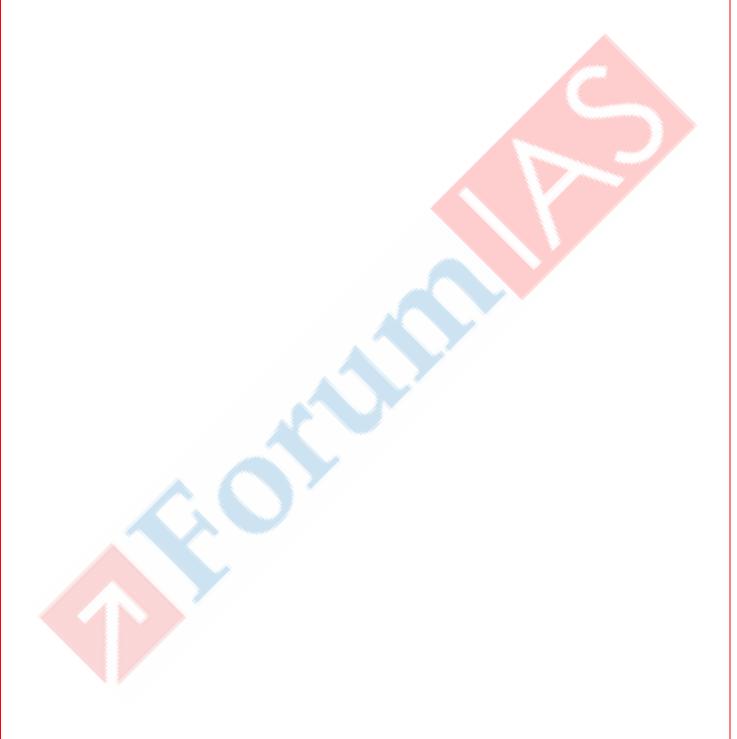




and the unclassified forests stretching from the Simleng river valley in the west to Laike in the east (in North Cachar Hills district).

The Barail Range is the watershed between the Brahmaputra and Barak rivers. The terrain ranges from flat and undulating in the river valleys, to mountainous with steep slopes.

Source: NCERT XI India Physical Environment





Polity

Q.1) Consider the following statements about Doctrine of Proportionality:

- 1. It postulates that the nature and extent of the State's interference with the exercise of a right must be proportionate to the goal it seeks to achieve.
- 2. The Doctrine was laid down by SC in Puttaswamy Case.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Doctrine of Proportionality:

- Doctrine of Proportionality postulates that the nature and extent of the State's interference with the exercise of a right must be proportionate to the goal it seeks to achieve.
- In the Puttaswamy Judgment the SC laid down the 3 Fold Test for ascertaining proportionality;
 - Legality: The action must be sanctioned by law;
 - Legitimate Aim: The proposed action must be necessary in a democratic society for a legitimate aim;
 - > Proportionality: The extent of such interference must be proportionate to the need for such interference.

Source: EPIC October 2021

Q.2) Which of the following statements about Abraham Accords is/are correct?

- a) It is a joint statement made between Israel, the United States and the United Arab Emirates.
- b) It refers to the agreement reached between Israel, Bahrain and the UAE to normalize relations between them.
- c) Both a and b
- d) None

ANS: C

Explanation: About Abraham Accords:

- Abraham Accords are a joint statement made between Israel, the United States and the United Arab Emirates in August 2020.
- It also refers to the agreement reached between Israel, Bahrain and the UAE to normalize relations between them.
- Under the Accords, the UAE and Bahrain will establish embassies, exchange ambassadors, cooperate and work together with Israel across a range of sectors including tourism, trade, healthcare and security.

Source: EPIC October 2021



Q.3) The term 'Artemis Accords' recently seen in news is related to which of the following?

- a) Cooperation in exploration of extra territorial bodies.
- b) Transfer of technology under IPCC
- c) Trade negotiations in times of Covid-19
- d) None

ANS: A

Explanation: About Artemis Accords:

- Artemis Accords were signed in 2020 by 8 countries,
- The accords are an agreement to abide by a broad set of principles to guide the cooperation in civil exploration and the use of the Moon, Mars, comets and asteroids for peaceful purposes ranging from mining resources to setting up lunar colonies,
- The salient principles listed in the Artemis Accords include Peaceful Purpose, Transparency (public disclosure of policies and plans), Interoperability, Emergency Assistance, Release of Scientific Data, Deconfliction of Activities etc.,
- Australia, Canada, Italy, Japan, Luxembourg, United Arab Emirates, United Kingdom, and the United States. Brazil, South Korea, New Zealand, and Ukraine joined later.

Source: EPIC October 2021

Q.4) Consider the following statements with respect to Tribal Advisory Council (TAC):

- 1. Each state having scheduled areas has to establish a tribal advisory council.
- 2. It is to consist of 20 members, three-fourths of whom are to be the women representatives of the scheduled tribes in the state assembly.

Which of the following above statements is/are NOT correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Tribes Advisory Council:

- Each state having scheduled areas has to establish a tribal advisory council to advice on welfare and advancement of the scheduled tribes.
- It is to consist of 20 members, three-fourths of whom are to be the representatives of the scheduled tribes in the state legislative assembly.
- A similar council can also be established in a state having scheduled tribes but not scheduled areas therein, if the president so directs.

Source: Laxmikant



Q.5) Consider the following statements with respect to Inter-State council:

- 1. Article 263 contemplates the establishment of an Inter-State Council to effect coordination between the states and between Centre and states.
- 2. Parliament can establish such a council to serve the public interest.

Which of the following codes below given is/are NOT correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: Article 263 contemplates the establishment of an Inter-State Council to effect coordination between the states and between Centre and states. Thus, the President can establish such a council if at any time it appears to him that the public interest would be served by its establishment. He can define the nature of duties to be performed by such a council and its organisation and procedure.

Source: Laxmikant

Q.6) Consider the following statements with respect to National Emergency (Article 352):

- 1. President proclaims a national emergency only after receiving a written recommendation from the cabinet.
- 2. President can declare a national emergency only on the actual occurrence of war or external aggression.

Which of the following above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: Under Article 352, the President can declare a national emergency when the security of India or a part of it is threatened by war or external aggression or armed rebellion. It may be noted that the president can declare a national emergency even before the actual occurrence of war or external aggression or armed rebellion, if he is satisfied that there is an imminent danger. The President, however, can proclaim a national emergency only after receiving a written recommendation from the cabinet3. This means that the emergency can be declared only on the concurrence of the cabinet and not merely on the advice of the prime minister. In 1975, the then Prime Minister, Indira Gandhi advised the president to proclaim emergency without consulting her cabinet. The cabinet was informed of the proclamation after it was made, as a fait accompli. The 44th Amendment Act of 1978 introduced this safeguard to eliminate any possibility of the prime minister alone taking a decision in this regard.

Source: Laxmikant



Q.7) In which of the following cases a member has to vacate his seat in the Parliament?

- 1. If his election is declared void by the court.
- 2. If he is expelled by the House.
- 3. If he is appointed to the office of governor of a state.

Select the correct option from codes below given:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: A member has to vacate his seat in the Parliament:

- if his election is declared void by the court;
- if he is expelled by the House;
- if he is elected to the office of President or Vice-President; and
- if he is appointed to the office of governor of a state.

If a disqualified person is elected to the Parliament, the Constitution lays down no procedure to declare the election void. This matter is dealt by the Representation of the People Act (1951), which enables the high court to declare an election void if a disqualified candidate is elected. The aggrieved party can appeal to the Supreme Court against the order of the high court in this regard.

Source: Laxmikant

Q.8) Which of the following statements with respect to adjournment motion is correct?

- 1. It is introduced in the Parliament for a definite matter of urgent public importance.
- 2. It needs the support of 50 members to be admitted.
- 3. Rajya Sabha is also permitted to make use of the adjournment motion

Select the correct answer using the codes given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: B

Explanation: About Adjournment Motion:

- It is introduced in the Parliament to draw attention of the House to a definite matter of urgent public importance, and needs the support of 50 members to be admitted.
- As it interrupts the normal business of the House, it is regarded as an extraordinary device.
- It involves an element of censure against the government and hence Rajya Sabha is not permitted to make use of this device.
- The discussion on an adjournment motion should last for not less than two hours and thirty minutes.

Source: Laxmikant



Q.9) Consider the following statements with respect to the Constituent Assembly:

- 1. The Constituent Assembly was constituted under the scheme formulated by the Cripps Mission.
- 2. The members of the Constituent Assembly were elected directly.

Which of the following codes below given is/are NOT correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The Constituent Assembly was constituted in November 1946 under the scheme formulated by the Cabinet Mission Plan. The features of the scheme were:

- The total strength of the Constituent Assembly was to be 389. Of these, 296 seats were to be allotted to British India and 93 seats to the Princely States. Out of 296 seats allotted to the British India, 292 members were to be drawn from the eleven governors' provinces and four from the four chief commissioners' provinces, one from each.
- Each province and princely state (or groups of states in case of small states) were to be allotted seats in proportion to their respective population. Roughly, one seat was to be allotted for every million population.
- Seats allocated to each British province were to be divided among the three principal communities—Muslims, Sikhs and general (all except Muslims and Sikhs), in proportion to their population.
- The representatives of each community were to be elected by members of that community in the provincial legislative assembly and voting was to be by the method of proportional representation by means of single transferable vote.
- The representatives of princely states were to be nominated by the heads of the princely states.

It is thus clear that the Constituent Assembly was to be a partly elected and partly nominated body. Moreover, the members were to be indirectly elected by the members of the provincial assemblies, who themselves were elected on a limited franchise.

Source: Laxmikant

Q.10) Which of the following Article of Indian Constitution related to implementing the International law and treaty obligations?

- a) Article 48
- b) Article 49
- c) Article 50
- d) Article 51

ANS: D

Explanation: To promote international peace and security and maintain just and honorable relations between nations; to foster respect for international law and treaty obligations, and to encourage settlement of international disputes by arbitration (Article 51).

Source: Laxmikant



Economy

Q.1) The ratio of total agricultural output to total production inputs is known as:

- a) Agricultural Productivity
- b) Yield
- c) Total Factor Productivity
- d) None

ANS: C

Explanation:

- Agricultural Productivity: Ratio of agricultural outputs to inputs. Agriculture productivity increases when more agricultural products are produced with the same amount or fewer resources.
- Yield: Output per unit of a single input. Yields can increase through productivity growth, or by applying more inputs, called input intensification. An increase in yield may or may not represent improvements in sustainability.
- Total Factor Productivity: IFPRI describes TFP as an indicator of how efficiently agricultural land, labor, capital, and materials (agricultural inputs) are used to produce a country's crops and livestock (agricultural output)—it is calculated as the ratio of total agricultural output to total production inputs. When more output is produced from a constant amount of resources, meaning that resources are being used more efficiently, TFP increases.

Source: EPIC October 2021

Q.2) Consider the following statements about Regulation of the Pharma Sector in India:

- 1. National Pharmaceutical Pricing Authority (NPPA) enforces the Drug Price Control Order and regulates prices of medicines.
- 2. NPPA comes under Ministry of Chemicals and Fertilizers.

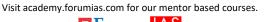
Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Regulation of the Pharma Sector in India:

- Drugs and Cosmetics Act, 1940: Regulates the import, manufacture, distribution and sale of drugs in India.
- Central Drugs Standard Control Organization (CDSCO) provides general information about drug regulatory requirements in India. It comes under Ministry of Health & Family Welfare,
- National Pharmaceutical Pricing Authority (NPPA) enforces the Drug Price Control Order and regulates prices of medicines. It comes under Ministry of Chemicals and **Fertilizers**
- The Pharmacy Act, 1948 regulates the profession of Pharmacy in India.
- The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954 provides to control the advertisements regarding drugs; it prohibits the advertising of remedies





alleged to possess magic qualities. Schedule Y of The Drugs and Cosmetics Act guides the requirements of clinical trials.

Source: EPIC October 2021

Q.3) Consider the following statements about WTO:

- 1. The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations.
- 2. WTO replaced General Agreement on Trade and Tariffs (GATT) in 2005.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About World Trade Organization (WTO):

- The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations,
- The overall objective of the WTO is to help its members use trade as a means to raise living standards, create jobs and improve people's lives,
- The WTO operates the global system of trade rules and helps developing countries build their trade capacity,
- It also provides a forum for its members to negotiate trade agreements and to resolve the trade disputes,
- WTO promotes open and free trade and supports the integration of developing countries into the international trading system,
- WTO became operational from January 1, 1995 and replaced the earlier General Agreement on Trade and Tariffs (GATT) through the Marrakesh Agreement of 1994.

Source: EPIC October 2021

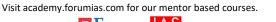
Q.4) For which of the following sector, government of India has approved the setting up of PM MITRA parks?

- a) Textile
- b) Electric Vehicles
- c) Mobile Phones
- d) Solar Panels

ANS: A

Explanation: About "PM-MITRA" Scheme:

- The scheme aims to realize the vision of building an Aatmanirbhar Bharat by positioning India strongly on the Global textiles map.
- It is inspired by the 5F vision of Hon'ble Prime Minister -Farm to Fibre to Factory to Fashion to Foreign.
- Aim: The scheme aims to create a world-class industrial infrastructure that would attract cutting-edge technology and boost FDI and local investment in the sector.
- Sites for the scheme will be selected by a "Challenge Method", based on objective criteria for Greenfield or Brownfield sites. The Centre is receiving proposals from





states for the ready availability of contiguous and encumbrance-free land parcels of 1,000+ acres along with other textiles related facilities & ecosystems.

Source: EPIC October 2021

Q.5) Which of the following statement about Multidimensional Poverty Index 2021 is Not correct?

- a) India is among top five countries.
- b) 50% of global multi-dimensionally poor people are children.
- c) The Report is developed by World Bank.
- d) NITI Aayog is the nodal agency to monitor mechanisms of the Global MPI to drive reforms.

ANS: C

Explanation: About the Multidimensional Poverty Index:

- The report is developed by Oxford Poverty and Human Development Initiative (OPHI) and United Nations Development Programme (UNDP) since 2010 for UNDP's Human Development Reports.
- NITI Aayog is the nodal agency that has been assigned the responsibility of leveraging the monitoring mechanism of the Global MPI to drive reforms.
- According to Global MPI 2020, India is 62nd among 107 countries with an MPI score of 0.123 and 27.91% headcount ratio, based on the NFHS $\frac{4(2015/16)}{4}$ data.

Key findings of the Multidimensional Poverty Index 2021:

- The report mentions that there are 1.3 billion multidimensionally poor people globally.
- The top five countries are India (381 million), Nigeria (93 million), Pakistan (83 million), Ethiopia (77 million) and the Democratic Republic of the Congo (56million).
- Women and children are most affected. 66% of poor households (836 million people) have women with less than six years of schooling. 50% of global multidimensionally poor people are children.
- In India, 83% (5 out of 6) multidimensionally poor people are from lower tribes or castes.

Source: EPIC October 2021

Q.6) Consider the following statements:

- 1. National Digital Livestock Mission (NDLM) is a digital platform developed jointly by the Department of Animal Husbandry and Dairying (DAHD) and National Dairy Development Board (NDDB).
- 2. NDLM will provide unique identification of all livestock.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About National Digital Livestock Mission (NDLM):

NDLM is a digital platform developed jointly by the Department of Animal Husbandry and Dairying (DAHD) and NDDB on the foundation of the existing Information Network for Animal Productivity and Health (INAPH).





- The aim is to create a farmer-centric, technology-enabled ecosystem where the farmers are able to realize better income through livestock activities with the right information.
- The bedrock of NDLM will be the unique identification of all livestock, which will be the foundation for all the state and national level programmes, including domestic and international trade.
- Through NDLM, the farmers will be able to access the markets, irrespective of their location.
- This system will also include robust animal breeding systems, nutrition, disease surveillance, disease control programmes and a traceability mechanism for animals and animal products.

Source: EPIC October 2021

Q.7) "Lorenz Curve" related to which of the following?

- a) Inflation
- b) Tax revenue
- c) Income inequality
- d) Public debt

ANS: C

Explanation: A graph showing the degree of inequality in income and wealth in a given population or an economy. It is a rigorous way to measure income inequality. In this method (for example), personal incomes in an economy are arranged in increasing order; the cumulative share of total income is then plotted against the cumulative share of the population. The curve's slope is thus proportional to per capita income at each point of the population distribution. In the case of complete equality of income, the lorenz curve will be a straight line and with greater curvature the inequality rises proportionally—the Gini Coefficient measures this inequality.

Source: Ramesh Singh

Q.8) "Special Safeguard Mechanism" of WTO related to which of the following?

- a) Agriculture sector
- b) Automobiles sector
- c) Services sector
- d) Financial sector

ANS: A

Explanation: In recent times, India has become more conscious towards protecting its agricultural trade interests at the international platforms. At the 10th Ministerial Conference of the WTO (Nairobi, December 2015), the Government of India adopted the following approach towards agri-trade policy:

- A Special Safeguard Mechanism (SSM) for developing countries.
- Public stockholding food for security purposes,
- A commitment to abolish export subsidies for farm exports, and
- Measures related to cotton.

Source: EPIC October 2021



Q.9) Consider the following statements with respect to Government e-Market place (GeM):

- 1. Government e Marketplace is an online marketplace for procurement of commonly used goods and services by government ministries, departments and CPSEs.
- 2. It functions under Directorate General of Supplies and Disposals (DGS&D), Ministry of Commerce.

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Government e Marketplace is an online marketplace setup in 2016 for procurement of commonly used goods and services by government ministries, departments and CPSEs. It aims to enhance transparency, efficiency and speed in public procurement. It is a National Procurement Portal of India. It functions under Directorate General of Supplies and Disposals (DGS&D), Ministry of Commerce and Industry.

Source: ForumIAS

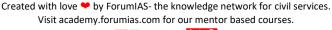
Q.10) "Most Favored Nation" provision related to which of the following?

- a) WTO
- b) IMF
- c) AIIB
- d) World Bank

ANS: A

Explanation: The WTO provides a rule based, transparent and predictable multilateral trading system. The WTO rules envisage non-discrimination in the form of National Treatment and Most Favoured Nation (MFN) treatment to India's exports in the markets of other WTO Members. National Treatment ensures that India's products once imported into the territory of other WTO Members would not be discriminated vis-à-vis the domestic products in those countries. MFN treatment principle ensures that members do not discriminate among various WTO members.

Source: EPIC October 2021





Environment

Q.1) "Water Declaration" has been recently endorsed by which of the following organisation?

- a) UNCCD
- b) UNEP
- c) IPCC
- d) WMO

ANS: D

Explanation: About 'Water Declaration':

- World Meteorological Congress has endorsed the 'Water Declaration', wherein early warnings about floods and droughts will be available for people everywhere on the planet by 2030.
- The Congress also endorsed the Water and Climate Coalition for promoting sharing and access to integrated hydrological, cryosphere, meteorological and climate information.
- Only 40% of the countries have operational early flood and drought warning systems.
 More than half of the world's population will be living under water-stressed conditions by 2030.
- Water and Climate Coalition is aimed at accelerating the progress of water-related United Nations Sustainable Development Goals, especially SDG-6 (water and sanitation for all).

About World Meteorological Organization (WMO):

- The World Meteorological Organization (WMO) is a specialized agency of the United Nations responsible for promoting international cooperation on atmospheric science, climatology, hydrology and geophysics.
- The World Meteorological Congress is the supreme body of the Organization which determines policy.
- Each member state and territory is represented by a Permanent Representative with WMO when Congress meets every four years.

Source: EPIC October 2021

Q.2) Consider the following statements about IRIS Initiative:

- 1. The IRIS initiative is a part of the Coalition for Disaster Resilient Infrastructure (CDRI).
- 2. The initiative is result of cooperation between India, the U.K. and Australia and included the participation of leaders of small island nations.

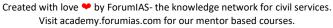
Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About IRIS Initiative:

• India along with Australia, the UK and Small Island developing states (SIDS) launched the IRIS (Infrastructure for Resilient Island States) initiative.





- The IRIS initiative is aimed at creating a coalition for putting in place infrastructure that can withstand disasters and lessen economic losses in island nations.
- Australia, India and the UK have committed an initial funding of \$10 million.
- According to a World Bank report titled 'Climate and Disaster Resilient Transport in Small Island Developing States', SIDS countries are highly susceptible to economic losses due to disasters, with average annual losses ranging from 1% to 10% of the gross domestic product (GDP).
- UN Global Assessment Report (2017) observes that SIDS countries account for twothirds of the countries in the world that suffer the highest relative losses due to disasters.
- IRIS Initiative has been launched to support the capacity building to meet the needs of SIDS countries.

Small Island developing states (SIDS):

- SIDS is a distinct group of 38 UN Member States and 20 Non-UN Members/Associate Members of UN regional commissions that face unique social, economic, and environmental vulnerabilities.
- Factors like small population size, remoteness from international markets, high transportation costs, vulnerability to exogenous economic shocks and fragile land and marine ecosystems make SIDS particularly vulnerable to biodiversity loss and climate change because they lack economic alternatives.
- Most SIDS are situated in the Caribbean Sea, Pacific Ocean (Micronesia, Melanesia, Polynesia) and there are a few in Indian Ocean (Bahrain, Maldives, Mauritius, Seychelles, Singapore) and Atlantic Ocean (Cape Verde, Comoros, Guinea-Bissau, Sao Tome).

Source: EPIC October 2021

Q.3) Consider the following statements about Phycoremediation:

- 1. It involves use of macroalgae or microalgae for the removal or biotransformation of pollutants.
- 2. It doesn't improve the PH of the water.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Phycoremediation:

- It is a type of bioremediation, which involves use of macroalgae or microalgae for the removal or biotransformation of pollutants.
- It improves the PH of the water.
- Lukha River in Meghalaya was rejuvenated using this technique.
 - > Meghalaya's Pollution Control Board had attributed the river's pollution to 'acid mines' drainage and 'rat-hole coal mines'.
 - The rejuvenation was funded through the District Mineral Fund.
 - Lukha River drains the East Jaintia Hills in Meghalaya before flowing to the Assam's Barak Valley into the floodplains of Bangladesh.

Source: EPIC October 2021





Q.4) "Kunming Declaration", recently seen in news is related to which of the following?

- a) Convention on Biological Diversity
- b) Bonn convention
- c) UNFCCC
- d) Rotterdam Convention

ANS: A

Explanation: The **"Kunming Declaration"** was adopted by over 100 countries in the ongoing virtual 15th meeting of the Conference of the Parties (COP) to the United Nations Convention on Biological Diversity (UNCBD).

- The theme of the COP-15 is "Ecological Civilization: Building a Shared Future for All Life on Earth".
- COP15 is being held to review the achievement and delivery of the CBD's Strategic Plan for Biodiversity 2011-2020.
- The declaration calls upon the parties to "mainstream" biodiversity protection in decision-making and recognise the importance of conservation in protecting human health.
- Conference of Parties (CoP) is the governing body of the Convention, and advances implementation of the Convention through the decisions it takes at its periodic meetings.

Source: EPIC October 2021

Q.5) Madrid Protocol is related to which of the following?

- a) Antarctica Treaty
- b) Arctic Circle
- c) Hydrochlorofluorocarbons (HCFCs)
- d) Plastic Pollution

ANS: A

Explanation: India and Antarctic Treaty:

- India signed the Antarctic Treaty on 19th August 1983 and soon thereafter received consultative status on 12th September 1983.
- The Madrid Protocol was signed by India which came into force on 14th January, 1998.
- India is one of the 29 Consultative Parties to the Antarctic Treaty.
- India is also a member of Council of Managers of National Antarctic Programme (COMNAP) and Scientific Committee of Antarctica Research (SCAR).
- All these representations show the significant position that India holds among the nations involved in Antarctic research.
- The Protocol on Environmental Protection to the Antarctic Treaty was signed in Madrid on October 4, 1991 and entered into force in 1998.
- It designates Antarctica as a "natural reserve, devoted to peace and science".

Source: EPIC October 2021



Q.6) Consider the following statements about National Tiger Conservation Authority:

- 1. It is responsible for implementation of the Project Tiger to protect endangered tigers.
- 2. It was established in 1972.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About National Tiger Conservation Authority:

- It was established in December 2005 following a recommendation of the Tiger Task Force which was constituted by the Prime Minister of India for re-organised management of Project Tiger and the many Tiger Reserves in India.
- The Wildlife Protection Act of 1972 was amended in 2006 to provide for its constitution.
- It is responsible for implementation of the Project Tiger to protect endangered tigers.

Source: ForumIAS

Q.7) Recently a 'micro snail species' has been found in which of the following state/UT?

- a) Andaman and Nicobar
- b) Karnataka
- c) Meghalaya
- d) Tripura

ANS: C

Explanation: Recently, researchers have discovered a micro snail species named Georissa mawsmaiensis in Mawsmai Cave in Meghalaya.

About the new snail species

- These snails are so small in size that an adult measures less than 2 millimetres in length.
- It has been discovered after 170 years.
- It was in 1851 that Georissa saritta, a member of the same genus as the latest find, was collected and described from the Musmai (Mawsmai today) valley near Cherrapunjee.
- The members of the Georissa genus are widely distributed across and reported from Africa, Asia, and the Pacific.
- However, they are confined to microhabitats consisting of limestone caves or karst landscapes formed by the dissolution of limestone.
- Georissa is found in soil or subterranean habitats in lowland tropical forest as well as high altitude evergreen forests or on rock surfaces rich in calcium.
- The new species is different in its shell morphology, starting from shell size variation to the presence of four very prominent spiral striations on body whorls of the shell.
- Until now, five snail species have been found from the caves of Meghalaya.

Source: The Hindu



Q.8) Project Snow Leopard (PSL) was launched in which of the following years?

- a) 2019
- b) 1972
- c) 2009
- d) 1992

ANS: C

Explanation: About Project Snow Leopard (PSL):

- It was launched in 2009 to promote an inclusive and participatory approach to conserve snow leopards and their habitat.
- Snow Leopard is in the list of 21 critically endangered species for the recovery programme of the Ministry of Environment Forest & Climate Change.
- Snow Leopard conservation breeding programme is undertaken at Padmaja Naidu Himalayan Zoological Park, Darjeeling, West Bengal.

Source: EPIC October 2021

Q.9) Consider the following statements about Mudumalai Tiger Reserve:

- 1. It is located at the tri-junction of Karnataka, Andhra Pradesh and Tamil Nadu.
- 2. It is a part of Nilgiri Biosphere Reserve.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Mudumalai Tiger Reserve:

- Mudumalai Tiger Reserve is located in the Nilgiris District of Tamil Nadu state at the tri-junction of three states, viz, Karnataka, Kerala and Tamil Nadu.
- It is a part of Nilgiri Biosphere Reserve (1st Biosphere Reserve in India) along with Wayanad Wildlife Sanctuary (Kerala) in the West, Bandipur National Park (Karnataka) in the North, Mukurthi National Park and Silent Valley in the South.
- Flora: The Reserve has tall grasses, commonly referred to as 'Elephant Grass'.
- Bamboo of the giant variety, valuable timber species like Teak, Rosewood, etc.
- There are several species of endemic flora.
- Fauna: Flagship Species: Tiger and Asian Elephant.

Source: ForumIAS



Q.10) Consider the following statements regarding "Palani Mountain Range":

- 1. It is part of Eastern Ghats.
- 2. Kodaikanal hill station located in the Palani range.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: Palni Hills, range of hills, an eastward extension of the Western Ghats, in southwestern Tamil Nadu state, southern India.

- The range is a continuation of the Anaimalai Hills in Kerala state. The Palanis are about 45 miles (70 km) wide and 15 miles (23 km) long.
- In the south the hills terminate abruptly in steep slopes. The upper Palanis, in the west, consist of rolling hills covered with coarse grasses; dense forests grow in the valleys.
- Peaks include Vandaravu, 8,376 feet (2,553 metres); Vembadi Shola, 8,221 feet (2,505 metres); and Karunmakadu, 8,042 feet (2,451 metres).
- The town of Kodaikanal is located in a high basin about 7,000 feet (2,150 metres) above sea level.
- Potatoes, beans, root crops, pears, and peaches are cultivated in and around the hill villages.

Source: NCERT XI India Physical Environment





Economy

Q.1) Consider the following statements:

- 1. Central Drugs Standard Control Organization (CDSCO) provides general information about drug regulatory requirements in India.
- 2. CDSCO under Ministry of Chemicals and Fertilizers.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: Regulation of the Pharma Sector in India:

- **Drugs and Cosmetics Act, 1940:** Regulates the import, manufacture, distribution and sale of drugs in India.
- Central Drugs Standard Control Organization (CDSCO) provides general information about drug regulatory requirements in India. It comes under Ministry of Health & Family Welfare,
- National Pharmaceutical Pricing Authority (NPPA) enforces the Drug Price Control Order and regulates prices of medicines. It comes under Ministry of Chemicals and Fertilizers
- The Pharmacy Act, 1948 regulates the profession of Pharmacy in India.
- The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954 provides to control the advertisements regarding drugs; it prohibits the advertising of remedies alleged to possess magic qualities. Schedule Y of The Drugs and Cosmetics Act guides the requirements of clinical trials.

Source: EPIC October 2021

Q.2) The term 'Rules of Origin' is related to which of the following?

- a) UNCTAD
- b) IPCC
- c) WTO
- d) UNEP

ANS: C

Explanation: India recently amended the rules of origin requirement under the Customs Act. The burden of compliance is imposed on importers, which discourages imports.

Rules of Origin: The Rules of Origin determine whether a product originated in an FTA or a non-FTA country. The products from FTA countries attract preferential tariff rates, while non-FTA attract the Most Favored Nation rate.

Source: EPIC October 2021



Q.3) Consider the following statements with respect to Bilateral Investment Promotion & Protection Agreement (BIPA):

- 1. The objective of the BIPA is to promote and protect the interests of investors of either country in the territory of other country.
- 2. It is an initiative of International Centre for Settlement of Investment Disputes (ICSID).

Which of the following below given codes is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: As part of the Economic Reforms Programme initiated in 1991, the foreign investment policy of the Government of India was liberalised and negotiations undertaken with a number of countries to enter into Bilateral Investment Promotion & Protection Agreement (BIPA) in order to promote and protect on reciprocal basis investment of the investors.

Government of India have, so far, (as by July 2012) signed BIPAs with 82 countries out of which 72 BIPAs have already come into force and the remaining agreements are in the process of being enforced. In addition, agreements have also been finalised and/or being negotiated with a number of other countries.

The objective of the BIPA is to promote and protect the interests of investors of either country in the territory of other country. Such agreements increase the comfort level of the investors by assuring a minimum standard of treatment in all matters and provides for justifiability of disputes with the host country (it should be noted here that India is not a member of the World Bank group's body, the ICSID, serving the same purpose.

BIPA is India's version. While the former is a multilateral body, the latter is a bilateral one). Source: ForumIAS

Q.4) Consider the following statements with respect to International Development Agency (IDA):

- 1. It provides short term lending for the development of economic services.
- 2. India is the biggest beneficiary of the IDA support.

Which of the following below given codes is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About International Development Agency (IDA):

- The International Development Agency (IDA) which is also known as the soft window of the WB was set up in 1960 with the basic aim of developing infrastructural support among the member nations, long-term lending for the development of economic services.
- Its loans, known as credits are extended mainly to economies with less than \$895 per capita income.
- The credits are for a period of 35–40 years, interest-free, except for a small charge to cover administrative costs. Repayment begins after a 10-year grace period.



- There was no human angle to its lending. But now there remain no hard and fast differences between the purposes for the IBRD and IDA lending.
- Every year developing nations make enough diplomatic attempts to carve out maximum loan disbursal for themselves.
- India had been the biggest beneficiary of the IDA support. The total support (IBRD + IDA) for India had been \$ 91.81 billion till date.

Source: World Bank

Q.5) Consider the following statements with respect to Repo and Reverse Repo rate:

- 1. RBI introduced both Repo and Reverse Repo rate at the same time.
- 2. Repo and Reverse Repo rate instruments used to raise long term funds.

Which of the following codes below given is/are NOT correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Repos and Reverse Repos:

- In the era of economic reforms there developed two new instruments of money marketrepo and reverse repo.
- Considered the most dynamic instruments of the Indian money market they have emerged the most favored route to raise short-term funds in India.
- 'Repo' is basically an acronym of the rate of repurchase.
- The RBI in a span of four years, introduced these instruments-repo in December 1992 and reverse repo in November 1996.
- Repo allows the banks and other financial institutions to borrow money from the RBI for short-term (by selling government securities to the RBI).
- In reverse repo, the banks and financial institutions purchase government securities from the RBI (basically here the RBI is borrowing from the banks and the financial institutions).
- All government securities are dated and the interest for the repo or reverse repo transactions is announced by the RBI from time to time.
- The provision of repo and the reverse repo have been able to serve the liquidity evenness in the economy as the banks are able to get the required amount of funds out of it, and they can park surplus idle funds through it.
- These instruments have emerged as important tools in the management of the monetary and credit policy in recent years.

Source: The Hindu



Q.6) Consider the following statements with respect to the Drugs and Cosmetics Act:

- 1. Act was passed in before Independence.
- 2. It regulates the import, manufacture and distribution of drugs in India.

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The Drugs and Cosmetics Act, 1940 is an Act of the Parliament of India which regulates the import, manufacture and distribution of drugs in India. The primary objective of the act is to ensure that the drugs and cosmetics sold in India are safe, effective and conform to state quality standards. The related Drugs and Cosmetics Rules, 1945 contains provisions for classification of drugs under given schedules and there are guidelines for the storage, sale, display and prescription of each schedule.

Source: EPIC October 2021

Q.7) Consider the following statements with respect to International Monetary Fund (IMF):

- 1. The IMF's primary purpose is to ensure the stability of the international monetary system.
- 2. IMF raises its resource only through member countries.

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About International Monetary Fund (IMF):

- The International Monetary Fund (IMF) is an organization of 189 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.
- Created in 1945, the IMF is governed by and accountable to the 189 countries that make up its near-global membership.
- The IMF's primary purpose is to ensure the stability of the international monetary system—the system of exchange rates and international payments that enables countries (and their citizens) to transact with each other.
- The Fund's mandate was updated in 2012 to include all macroeconomic and financial sector issues that bear on global stability.
- Most resources for IMF loans are provided by member countries, primarily through their payment of quotas.
- While quota subscriptions of member countries are the IMF's main source of financing, the Fund can supplement its quota resources through borrowing if it believes that they might fall short of members' needs.

Source: IMF



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Q.8) Consider the following statements with respect to "Invest India":

- 1. It is a national investment promotion and facilitation agency and promotes sector specific investments.
- 2. It was set up in 2009 as a non-profit venture under the Ministry of Finance.

Which of the following codes below given is/are NOT correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Invest India:

- Invest India is the national investment promotion and facilitation agency, Invest India focuses on sector-specific investor targeting and development of new partnerships to enable sustainable investments in India.
- In addition to a core team that focuses on sustainable investments, Invest India also partners with substantial investment promotion agencies and multilateral organizations.
- Invest India also actively works with several Indian states to build capacity as well as bring in global best practices in investment targeting, promotion and facilitation areas.
- Invest India, set up in 2009, is a non-profit venture under the Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India.

Source: ForumIAS

Q.9) Consider the following statements with respect to Base Erosion and Profit Shifting (BEPS):

- 1. It is a tax planning strategies that exploit mismatches and gaps that exist between the tax rules of different jurisdictions.
- 2. It is an initiative of World Economic Forum.

Which of the following codes below given is/are NOT Correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About BEPS:

- BEPS is a term used to describe tax planning strategies that exploit mismatches and gaps that exist between the tax rules of different jurisdictions.
- It is an OECD initiative approved by the G20 to identify ways of providing more standardized tax rules globally.

Source: The Hindu



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Q.10) Consider the following statements with respect to GreenCo Rating system:

- 1. It is developed by Confederation of Indian Industry (CII).
- 2. It aims to facilitate companies to make a substantial improvement in their environmental performance thereby saving both natural and financial resources.

Which of the following codes below given is/are correct?

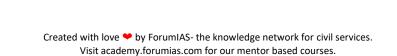
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About GreenCo Rating:

- GreenCo Rating has been developed by the Confederation of Indian Industry (CII).
- Its aim is to facilitate companies to make a substantial improvement in their environmental performance thereby saving both natural and financial resources.
- Under this, companies are evaluated on major environmental areas including- energy efficiency, renewable energy, water conservation, waste management, resource conservation, green supply chain and life cycle assessment.
- Recently GreenCo Rating has been acknowledged in India's Intended Nationally Determined Contribution (INDC) document submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015.

Source: ForumIAS



In Forum AS

History/Art and Culture

Q.1) Recently, Kallakurichi wood carvings which have received geographical indication (GI) tag belongs to which of the following state?

- a) Karnataka
- b) Tamil Nadu
- c) Assam
- d) Manipur

ANS: B

Explanation: About Kallakurichi wood carvings:

- Kallakurichi wood carvings are mainly practised in the Kallakurichi district in Tamil
- They are a unique form of wood carving wherein the craftsmen are specialised in carving temple-related items and also furniture using traditional designs.
- The woodcarving skill evolved as an indigenous art when Madurai was an important town under different monarchical regimes in ancient times.
- Karuppur kalamkari paintings and the Kallakurichi wood carvings have received geographical indication (GI) tags.

Source: EPIC October 2021

Q.2) Which of the statement given below is not correct with respect to Buddhism?

- a) Abhidhamma Day marks the end of a three-month rainy retreat.
- b) 'Vassa' is the term used for the time Buddhist monks stay at one place and pray.
- c) Buddhists believe that on Abhidhamma day Lord Buddha came back to earth from heaven.
- d) None of the above

ANS: D

Explanation: About Abhidhamma Day:

- The Abhidhamma Day marks the end of a three-month rainy retreat Varshavaas or Vassa – for the Buddhist monks and nuns, during which time they stay at one place and pray.
- Buddhists believe this is the day when Lord Buddha came back to earth from heaven.
- He is believed to have gone to heaven to teach Abhidhamma Pitaka (a basket of ultimate things) to his mother.
- Hence, his followers too mark the three-month time by staying at one place and praying.

Source: EPIC October 2021



Q.3) Consider the following pairs with respect to Kautilya's Saptang Theory of State:

Term	Meaning
1. Amatya	Army
2. Kosha	Treasury
0 D	D .:C 1.

3. Durga Fortified Capital

Which of the pair given above is correctly matched?

Select the correct answer using the codes given below:

- a) 1 and 2 only
- b) 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: C

Explanation: Kautilya's Saptang Theory of State (Rajya)

According to this theory, the State has 7 organs or Prakritis:

- Swami (The Ruler),
- Amatya (The Minister),
- Janapada (The Population),
- Durga (The Fortified Capital),
- Kosha (The Treasury),
- Danda (The Army),
- Mitra (Ally and Friend).

Source: EPIC October 2021

Q.4) Which of the following ancient text has Pythagoras theorem?

- a) Baudhayana's Sulbha-sutra
- b) Ashtadhyayi of Panini
- c) Charaka Samhita
- d) Bhaskaracharya's Siddhant sheromony

ANS: A

Explanation: In recent years, there has been a move to recognize contributions in science made by the ancient non-Western societies,

- the Pythagorean Theorem was well known in ancient India described in Baudhayana's Sulbha-sutra,
- Fibonacci series was already mentioned by Pingala and Hemchandra,
- Charak and Sushruta have been recognized as pioneers of medicine and surgery.

Source: EPIC October 2021

Q.5) "The East India Association" was organised by which of the following freedom fighter?

- a) Dadabhai Naoroji
- b) Ishwar Chandra Vidya Sagar
- c) Sisir Kumar Ghosh
- d) Surendranath Banerjea

ANS: A



Explanation: The East India Association was organised by Dadabhai Naoroji in 1866 in London to discuss the Indian question and influence public men in England to promote Indian welfare. Later, branches of the association were started in prominent Indian cities.

Source: ForumIAS

Q.6) Which of the following denotes the term 'Cushoons' during the medieval period?

- a) Army chief
- b) Rocket artillery brigades
- c) Animal rights activist
- d) None

ANS: B

Explanation: About 'Cushoons':

- By the order of Tipu Sultan, his general Mir Zain-ul-'Abidin Shushtari compiled a military manual called Fathul Mujahidin in which 200 rocket men were assigned to each Mysorean cushoon (brigade).
- Mysore had 16 to 24 cushoons of infantry.
- The rocket men were trained to launch their rockets at an angle calculated from the diameter of the cylinder and the distance to the target.
- In addition, wheeled rocket launchers were used in war that was capable of launching five to ten rockets almost simultaneously.

Source: NCERT

Q.7) Who are the 'Panyaadhyaksha' in Mauryan administration?

- a) In charge of weights and measures
- b) In charge of all mines except iron
- c) Quality controller of essential commodities
- d) In charge of communication system

ANS: C

Explanation: According to Megasthenese:

- Royal officers called Agronomies were in charge of communication system.
- Panyaadhyaksha was quality controller of essential commodities.
- Potwaadhyaksha was in charge of weights and measures.
- Akaradhyakshya was in charge of all mines except iron.

Source: NCERT

Q.8) The Battle of Chausa was fought between whom among the following?

- a) Humayun and Sher Shah Suri
- b) Babur and Sher Shah Suri
- c) Humayun and Rana Sanga
- d) Akbar and Rana Sanga

ANS: A

Explanation: About Battle of Chausa:

• The Battle of Chausa was fought between the Afghan, Sher Shah Suri, and the Mughal emperor, Humayun on 26 June 1539.



- The battle took place at Chausa, a block located 10 miles southwest of Buxar which is in modern-day Bihar.
- Sher Shah Suri defeated Humayun and assumed the title "Farid al-Din Sher Shah".

Source: ForumIAS

Q.9) The battle of Talikota was a decisive battle in the decline of which of the following empire?

- a) Vijayanagara
- b) Satvahanas
- c) Cheras
- d) Palas

ANS: A

Explanation: About Battle of Talikota:

- The battle of Talikota was a decisive battle in the history of Vijayanagara empire.
- The battle was fought in a range of 40 kms. This battle was fought between the villages of Rakkasagi and Tangadagi, near Talikota.
- Hence it was called the battle of Talikota or Rakkasa-Tangadi. Some scholars believe
 that the decisive battle was fought at Krishna-Bannihatti. Hence it is called the battle
 of Bannihatti.
- Aliya Ramaraya was the leader of the Vijayanagara troops. On the opposite side was the coalition army of Shahi Sultans.
- This grand army comprised of the troops Adil Shahis of Bijapura, Nizam Shahis of Ahmadnagar, Kutub Shahis of Golkanda and Barid Shahis of Bidar.

Source: Tamil Nadu board textbook.

Q.10) Consider the following pair of Authors and Sanskrit grammar books:

AuthorBook1. PaniniAshtadhyayi2. PatanjaliMahabhashya

3. Amarasimha Chandravyakaranam

Which of the above given pair are correctly matched?

- a) 2 and 3 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 2 and 3 only

ANS: B

Explanation: The Gupta period also saw the development of Sanskrit grammar based on Panini who wrote Ashtadhyayi and Patanjali who wrote Mahabhashya on the topic.

- This period is particularly memorable for the compilation of the Amarakosa, a thesaurus in Sanskrit, by Amarasimha.
- A Buddhist scholar from Bengal, Chandrogomia, composed a book on grammar named Chandravyakaranam.

Source: Tamil Nadu state board.





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Scheme/Programs/Institutions

Q.1) "National Generic Document Registration System" has been developed by NIC for which of the following purpose?

- a) Promoting generic medicine development in India
- b) Registering land documents digitally
- c) Submission of all educational documents to DoPT for employment
- d) Registering financial documents

ANS: B

Explanation: National Generic Document Registration System is a cloud-based application developed by National Informatics Centre (NIC) for registering land documents and properties digitally. It will lead to reduction in land disputes; check on fraudulent transactions, SMS and email enabled alerts related to transactions on property, PAN Verification etc. It will also provide ease of living to the people.

Source: EPIC November 2021

Q.2) Consider the following statements about Anaemia Mukt Bharat (AMB) Programme:

- 1. It is launched in 2021 by the Ministry of Health and Family Welfare.
- 2. Its objective is to reduce the prevalence of anaemia among children, adolescents and women in the reproductive age group (15–49 years).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Anaemia Mukt Bharat (AMB) Programme:

- Anaemia Mukt Bharat (AMB) Programme was launched in 2018 by the Ministry of Health and Family Welfare.
- Its objective is to reduce the prevalence of anaemia among children, adolescents and women in the reproductive age group (15–49 years).
- The programme aims to reduce the proportion of anaemia among children to 40%, pregnant women to 32% and lactating women to 40% by 2022.
- The 6x6x6 strategy under AMB implies six age groups, six interventions and six institutional mechanisms.
- This strategy focuses on ensuring supply chain, demand generation and strong monitoring using the dashboard for addressing anemia both due to nutritional and non-nutritional causes.

Source: EPIC November 2021



Q.3) Ministry of Science & Technology has launched India's first Virtual Science Lab for children under which of the following schemes?

- a) SEED Programme
- b) Kishore Vaigyanik Protsahan Yojana (KVPY)
- c) Jigyasa programme
- d) None

ANS: C

Explanation: About CSIR Jigyasa Programme:

- The Union Minister of Science & Technology has launched India's first Virtual Science Lab for children under CSIR Jigyasa programme.
- The aim is to provide quality research exposure and innovative pedagogy for school students to drive their scientific curiosity based on an online interactive medium.
- Virtual Lab will provide virtual tour of CSIR laboratories, interaction with scientists to clear doubts, Access content in regional languages; Project based support; Simulation Experiments; Science based webinars; Student Entrepreneurship etc

Source: EPIC November 2021

Q.4) "e-AMRIT", a web portal, recently seen in news is related to which of the following?

- a) Char Dham yatra registration
- b) Drinking Water
- c) Electric Mobility
- d) Biotechnology

ANS: C

Explanation: About e-AMRIT:

- e-AMRIT (Accelerated e-Mobility Revolution for India's Transportation) is a web portal for creating awareness about electric mobility in India.
- It is a joint initiative between NITI Aayog and the UK Government. Its purpose is to serve as a 'one-stop site' to provide all the information related to the adoption of electric vehicles in India.

Source: EPIC November 2021

Q.5) Odisha's Samhati project is related to which of the following?

- a) Promotion to Hindi language
- b) Promotion of Odia languages
- c) Tribal language
- d) Improving strength of girls in primary schools.

ANS: C

Explanation: About Odisha's Samhati project:

- According to the Odisha School Education Programme Authority (OSEPA), more than 302 textbooks and 2,500 supplementary reading materials including story books and pictures charts in 21 tribal languages have been developed.
- Under Samhati, all teachers of primary level would be provided functional knowledge of tribal languages.





- Implemented by: The Scheduled Castes and Scheduled Tribes Research and Training Institute (SCSTRTI) and the Academy of Tribal Language and Culture (ATLC), Bhubaneswar
- Of the 21 languages, Santhali the only language which has been included in eighth schedule of Constitution is taught in its own ol chiki script while rest of tribal languages have Odia scripts.

Source: EPIC November 2021

Q.6) Consider the following statements about Competition Commission of India (CCI):

- 1. It is a statutory body established in 2003.
- 2. It is responsible for enforcing The Competition Act, 2002 throughout India.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Competition Commission of India (CCI):

- It is a statutory body established in 2003 and became fully functional in 2009.
- It is responsible for enforcing The Competition Act, 2002 throughout India.
 - o The Act prohibits anti-competitive agreements, abuse of dominant position by enterprises.
 - The Act regulates combinations (acquisition, acquiring of control and Merger and acquisition), which causes or likely to cause an appreciable adverse effect on competition within India.
- CCI consists of a Chairperson and 6 Members appointed by the Central Government.
 - o **Eligibility:** Person should be qualified to be a judge of a High Court, or, has special knowledge of, and professional experience of not less than fifteen years in international trade, economics, commerce, law, finance.
- It is the duty of the Commission to:
 - o eliminate practices having adverse effect on competition
 - o Promote and sustain competition.
 - o Protect the interests of consumers.
 - Ensure freedom of trade in the markets of India.

Source: EPIC November 2021

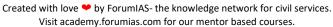
Q.7) "NIPUN Bharat Scheme" is related to which of the following?

- a) Improving number of women in STEM
- b) Skill India
- c) Immunization
- d) Foundational literacy and numeracy in primary classes

ANS: D

Explanation: About NIPUN Bharat Scheme:

• The Department of School Education and Literacy launched the National Mission on Foundational Literacy and Numeracy called National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat) under the aegis of Centrally Sponsored Scheme of Samagra Shiksha.





- The mission aims to achieve universal foundational literacy and numeracy in primary classes.
- The Mission Guidelines lays down priorities and actionable agendas for States and UTs to achieve the goal of proficiency in foundational literacy and numeracy for every child by grade 3.

Source: EPIC November 2021

Q.8) Consider the following statements regarding International Centre for Settlement of Investment Disputes (ICSID):

- 1. It was set up in 1966 is an investment dispute settlement body whose decisions are binding on the parties.
- 2. India is founder member of ICSID.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: The International Centre for Settlement of Investment Disputes (ICSID), set up in 1966 is an investment dispute settlement body whose decisions are binding on the parties.

- It was established under the 1966 Convention on the Settlement of Investment Disputes between States and Nationals of Other States.
- Though recourse to the centre is voluntary, but once the parties have agreed to arbitration, they cannot withdraw their consent unilaterally.
- It settles the investment disputes arising between the investing foreign companies and the host countries where the investments have been done.
- India is not its member (that is why the Enron issue was out of its preview). It is believed that being signatory to it encourages the foreign investment flows into an economy, but risks independent sovereign decisions, too.

Source: Sriram's IAS

Q.9) Consider the following statements with respect to Pradhan Mantri Laghu Vyapari Maan-dhan Yojana:

- 1. It is a compulsory and contributory pension scheme.
- 2. Ministry of finance is the nodal ministry to implement the scheme.

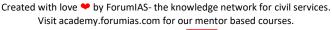
Which of the statements given above is/are NOT correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: National Pension Scheme for Traders, Shopkeepers and Self-Employed Persons (originally proposed name was, Pradhan Mantri Laghu Vyapari Maan-dhan Scheme) has been launched on 12.09.2019. It is a voluntary and contributory pension scheme.

• The traders in the age group of 18-40 years with an annual turnover, not exceeding Rs.1.5 crore and who is not a member of EPFO/ESIC/NPS/PM-SYM or an income tax payer, can join the scheme.





- Under the scheme, 50% monthly contribution is payable by the beneficiary and equal matching contribution is paid by the Central Government.
- Subscribers, after attaining the age of 60 years, are eligible for a monthly minimum assured pension of Rs.3,000/-.
- As the Scheme has been launched on 12th September, 2019. It envisages coverage of about 50 lakh enrolments under the Scheme for 2019-20.
- In order to achieve this, various measures including celebration of Pension Week/Pension Saptah have been taken.
- All State/UT Governments were requested for popularizing and bringing more awareness about the Scheme.
- The progress of the Scheme is being reviewed regularly in the Ministry at senior level with State/UT Governments, for taking initiatives under Mission Mode.
- Ministry of Labour & Employment is the nodal ministry to implement the scheme.

Source: ForumIAS factly

Q.10) Consider the following statements with respect to Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP):

- 1. PMBJP campaign launched by Ministry of Health to provide quality medicines at affordable prices to the masses.
- 2. Bureau of Pharma PSUs of India (BPPI) is the implementation agency for PMBJP.

Which of the following above statements is/are correct?

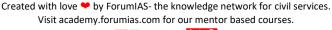
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is a campaign launched by the Department of Pharmaceuticals to provide quality medicines at affordable prices to the masses.

- PMBJP stores have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- It was launched by the Department of Pharmaceuticals in November 2008 under the name Jan Aushadi Campaign.
- Bureau of Pharma PSUs of India (BPPI) is the implementation agency for PMBJP.

Source: ForumIAS factly





Science and Technology

Q.1) First planetary defense test mission, named the Double Asteroid Redirection Test (DART) has been launched by which of the following?

- a) NASA
- b) ISRO
- c) ROSCOSMOS
- d) Both (a) and (b)

ANS: A

Explanation: NASA has launched its first planetary defense test mission, named the Double Asteroid Redirection Test (DART).

- The main aim of the mission is to test the newly developed technology that would allow a spacecraft to crash into an asteroid and change its course.
- This mission will help scientists understand whether the kinetic effect of a spacecraft impact could successfully deflect an asteroid on a collision course with Earth.
- The target of the spacecraft is a small moonlet called Dimorphos (Greek for "two forms"). Dimorphos orbits a larger asteroid named Didymos (Greek for "twin").
- The mission was launched on a SpaceX Falcon 9 rocket.

Source: EPIC November 2021

Q.2) Consider the following statements with respect to Scramjet engine:

- 1. ISRO successfully test fired scramjet engine and realized the critical technology of Air Breathing Propulsion System in 2016.
- 2. The Scramjet engine designed by ISRO uses Oxygen as fuel and the Hydrogen from the atmospheric air as the oxidizer.

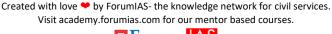
Which of the following codes below given is/are NOT correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: The first experimental mission of ISRO's Scramjet Engine towards the realisation of an Air Breathing Propulsion System was successfully conducted on August 28, 2016 from Satish Dhawan Space Centre SHAR, Sriharikota.

- After a flight of about 300 seconds, the vehicle touched down in the Bay of Bengal, approximately 320 km from Sriharikota.
- The vehicle was successfully tracked during its flight from the ground stations at
- With this flight, critical technologies such as ignition of air breathing engines at supersonic speed, holding the flame at supersonic speed, air intake mechanism and fuel injection systems have been successfully demonstrated.
- The Scramjet engine designed by ISRO uses Hydrogen as fuel and the Oxygen from the atmospheric air as the oxidizer. This test was the maiden short duration experimental test of ISRO's Scramjet engine with a hypersonic flight at Mach 6.





• ISRO's Advanced Technology Vehicle (ATV), which is an advanced sounding rocket, was the solid rocket booster used for the test of Scramjet engines at supersonic conditions. ATV carrying Scramjet engines weighed 3277 kg at lift-off.

Source: ForumIAS

Q.3) "UNNATI Programme" launched by which of the following Institution?

- a) ISRO
- b) CSIR
- c) NITI Aayog
- d) All of the above

ANS: A

Explanation: UNNATI, a capacity building programme on Nanosatellite development, is an initiative by ISRO to commemorate the 50th anniversary of the first United Nations conference on the exploration and peaceful uses of outer space (UNISPACE-50).

- The programme provides opportunities to the participating developing countries to strengthen in assembling, integrating and testing of Nanosatellite.
- UNNATI programme is planned to be conducted for 3 years by U.R. Rao Satellite Centre of ISRO in 3 batches and will target to benefit officials of 45 countries.
- The first batch started today in which 30 delegates from 17 countries are participating.

Source: ForumIAS

Q.4) "APSARA, CIRUS and ZERLINA" related to which of the following?

- a) Space expedition programmes
- b) Nuclear reactors
- c) Surface to Air missiles
- d) None of the above

ANS: B

Explanation: "APSARA" – the celestial water nymph, by Pandit Nehru himself. The basic design for this reactor was frozen in July 1955 and Indian scientists and engineers completed the construction in just over a year.

- With APSARA, India became the first Asian country outside the erstwhile Soviet Union, to have designed and built its own nuclear reactor.
- The next crucial step involved the planning of larger reactors having much higher neutron flux and power than what was available at APSARA.
- This plan materialized in 1960 with the building of CIRUS, a high power (40 MWt) research reactor.
- This reactor, then known as the Canada India Reactor or CIR for short, was built in collaboration with Canada.
- In early 1961, a zero energy critical facility named ZERLINA (Zero Energy Reactor for Lattice Investigations and New Assemblies) was built, for studying various geometrical aspects (lattice parameters) of a reactor fuelled with natural uranium and moderated with heavy water.

Source: ForumIAS



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Q.5) Consider the following statements with respect to Indian Institute of Remote Sensing (IIRS):

- 1. IIRS is located at Dehradun.
- 2. IIRS is a premier institute with the objective of capacity building in Remote Sensing and Geo-informatics

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Indian Institute of Remote Sensing (IIRS):

- Indian Institute of Remote Sensing (IIRS) at Dehradun is a premier institute with the objective of capacity building in Remote Sensing and Geo-informatics and their applications through education and training programmes at postgraduate level.
- The Institute also hosts and provides support to the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTE-AP), affiliated to the United Nations.

Source: ForumIAS

Q.6) Consider the following statements about Leadership Group for Industry Transition (LeadIT):

- 1. It was launched by the Prime Ministers of Sweden and India with support from the World Economic Forum (WEF).
- 2. It is a voluntary initiative for promoting low-carbon transition.

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Leadership Group for Industry Transition (LeadIT):

- Leadership Group for Industry Transition (LeadIT) was launched by the Prime Ministers of Sweden and India with support from the World Economic Forum (WEF) during the UN Climate Action Summit in 2019, in New York.
- It is a voluntary initiative for promoting low-carbon transition through active participation of private sector companies especially in the sectors like Iron & Steel, Aluminium, Cement and Concrete, petrochemicals, fertilisers, bricks, heavy-duty transport.

Source: EPIC November 2021



Q.7) Consider the following statements about Infrastructure for Resilient Island States (IRIS) Initiative:

- 1. IRIS is the first major initiative under the Coalition for Disaster Resilient Infrastructure (CDRI).
- 2. .It aims to make critical infrastructure in the SIDS (Small Island Developing States) resilient against all kinds of disasters.

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: IRIS Initiative:

- India and the UK have launched the Infrastructure for Resilient Island States (IRIS) Initiative.
- IRIS is the first major initiative under the Coalition for Disaster Resilient Infrastructure (CDRI).
- It aims to make critical infrastructure in the SIDS (Small Island Developing States) resilient against all kinds of disasters.
- As part of the initiative, the Indian Space Research Organisation (ISRO) will create a special "data window" for SIDS (Small Island Developing States).
- This window will provide SIDS countries timely information about cyclones, coral-reef
 monitoring, coast-line monitoring through the satellite. This will strengthen their
 fences against climate disasters.

Source: EPIC November 2021

Q.8) Consider the following statements with respect to BRAHMOS Supersonic cruise missile:

- 1. It is developed by India and Russia Jointly.
- 2. It has flight range up to 500km.
- 3. It operates on "Fire and Forget Principle".

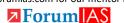
Which of the following below given codes is/are NOT correct?

- a) 1 only
- b) 1 and 2 only
- c) 2 only
- d) 2 and 3 only

ANS: C

Explanation: About BrahMos is a supersonic cruise missile:

- BrahMos is a supersonic cruise missile being developed by BrahMos Aerospace, a joint venture between Defence Research and Development Organisation (DRDO) of India and NPO Mashinostroeyenia (NPOM) of Russia.
- The missile can be launched against ships and land-based targets.
- The missile is named after two rivers, the Brahmaputra in India and the Moskva in Russia.
- BrahMos has a flight range of up to 290km and can reach a maximum speed of Mach
 3.
- The air launched version of the missile is under development as of 2013.



- Advanced satellite navigation systems from Russia's Kh-555 and Kh-101 strategic long-range cruise missiles, and GPS-GLONASS technology were added to the existing doppler-inertial platforms of BrahMos missiles in 2013.
- The missile can be installed on ships, submarines, aircraft and ground vehicles. BrahMos missiles are inducted in to the armed forces of India and Russia and can also be exported to friendly nations.
- The 'Fire and Forget' type missile weights 3t and intercepts surface targets at an altitude of 10m up to 14,000m.

Source: EPIC November 2021

Q.9) The IceCube observatory in South Pole of Antarctica searches for which of the following particle?

- a) Protons
- b) Electrons
- c) Neutrinos
- d) Plasma

ANS: C

Explanation: The IceCube Neutrino Observatory is the first detector of its kind, designed to observe the cosmos from deep within the South Pole ice. An international group of scientists responsible for the scientific research makes up the IceCube Collaboration. Encompassing a cubic kilometer of ice, IceCube searches for nearly mass-less subatomic particles called neutrinos. These high-energy astronomical messengers provide information to probe the most violent astrophysical sources: events like exploding stars, gamma-ray bursts, and cataclysmic phenomena involving black holes and neutron stars.

Source: ForumIAS

Q.10) "Kessler Syndrome" related to which of the following?

- a) Mental Disorder
- b) Ozone Hole
- c) Defense forces
- d) Space Debris

Explanation: Exploring space is one of humanity's most hopeful activities. By going out into the great unknown of the Universe, we hope to extend our reach, find new resources and life forms, while solving many of our earthly problems. But going to space is not something to take for granted—it can actually become impossible. There is a scenario, called the Kessler Syndrome that can cause the end of all space exploration and dramatically impact our daily lives. In 1978, the NASA scientist Donald J. Kessler proposed that a chain reaction of exploding space debris can end up making space activities and the use of satellites impossible for generations. He predicted that the number of objects that we keep launching into Low Earth Orbit (LEO) can create such a dense environment above the planet that inevitable collisions could cause a cascading effect. The space junk and shrapnel generated by one collision could make further collisions much more possible. And if you have enough collisions, the amount of space debris could overwhelm the orbital space entirely.

Source: ForumIAS

Locations/IR/Geography

Q.1) Recently, UNESCO has selected Srinagar as part of the UNESCO Creative Cities Network (UCCN) under which of the following category?

- a) Music
- b) Literature and Music
- c) Crafts and Folk Arts
- d) None

ANS: C

Explanation: The UNESCO has selected Srinagar as part of the UNESCO Creative Cities Network (UCCN) under the Crafts and Folk Arts category.

- Srinagar is famous for crafts like textiles, carpets and rugs, crewel embroidery, silverware, woodwork, papier-mâché, wooden crafts, Pashmina shawl etc.
- UNESCO Creative Cities Network (UCCN) was launched in 2004 to promote cooperation among cities which recognized creativity as a major factor in their urban development.
- The Network covers seven creative fields: Crafts and Folk Arts, Media Arts, Film, Design, Gastronomy, Literature and Music.
- 5 Indian cities are already part of CCN viz., Chennai and Varanasi (Music), Jaipur (Crafts and folk arts), Mumbai (Film), and Hyderabad (Gastronomy).
- The Indian National Commission for Cooperation with UNESCO had recommended Srinagar and Gwalior for inclusion in the list of UCCN.

Source: EPIC November 2021

Q.2) Consider the following statements about Indian Ocean Naval Symposium (IONS):

- 1. It is a biennial forum conceived by the Indian Navy in 2008.
- 2. IONS is currently chaired by France.

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Indian Ocean Naval Symposium (IONS):

- Indian Ocean Naval Symposium (IONS) is a biennial forum conceived by the Indian Navy in 2008.
- Its objective is to enhance maritime cooperation among Navies of the littoral states of the Indian Ocean Region.
- The inaugural edition of IONS was held in Feb 2008 in New Delhi with the Indian Navy as the Chair for two years.
- IONS is currently chaired by France.
- IONS includes 24 nations that hold territory within the Indian Ocean and 8 observer nations. France is member by virtue of its territory Reunion in the Indian Ocean.

Source: EPIC November 2021



Q.3) United Nations Security Council (UNSC) recently adopted resolution called "Resolution 2601" is related to which of the following?

- a) Gender Parity
- b) Protection of education in armed conflict
- c) Organised crime
- d) Tackling Hunger in covid era

ANS: B

Explanation: The United Nations Security Council (UNSC) has adopted a unique resolution called "Resolution 2601".

- Resolution 2601 calls for the protection of education in armed conflict.
- It urged the parties in armed conflict to immediately stop such violence and to safeguard the right to education.
- It also urged the Member States to create domestic legal frameworks to prevent attacks and protect schools, children, teachers during armed conflict and in post-conflict phases.
- The Education under Attack Report 2020, noted that more than 22,000 students, teachers, and academics were injured, killed or harmed in attacks on education during armed conflict over the past five years.
- The Report of the SecretaryGeneral 2020 and 2021 on 'Children and armed conflict' also reported a significant increase in the number of attacks against schools.

Source: EPIC November 2021

Q.4) "Bailadila Iron ore mine" is located in which of the following state?

- a) Jharkhand
- b) Karnataka
- c) Chhattisgarh
- d) Odisha

ANS: C

Explanation: Durg-Bastar-Chandrapur belt lies in Chhattisgarh and Maharashtra.

- Very high grade hematites are found in the famous Bailadila range of hills in the Bastar district of Chattisgarh.
- The range of hills comprises of 14 deposits of super high grade hematite iron ore. It has the best physical properties needed for steel making.
- Iron ore from these mines is exported to Japan and South Korea via Vishakhapatnam port.

Source: ForumIAS



Q.5) Which of the following are planetary winds?

- 1. Westerlies
- 2. Polar Easterlies
- 3. Trade Winds
- 4. Pampero

Choose the correct code from below given options:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

ANS: A

Explanation: About Planetary Winds:

- The winds blowing throughout the year from high pressure belts to low pressure belts in the same direction are called "planetary or prevailing winds".
- Due to the effect of the rotation of the earth, the direction of the winds tends to deflect, instead of blowing directly from one pressure belt to another.
- These winds blow throughout the year and are controlled by the latitudinal pressure belts. They blow over vast area of continents and oceans.
- The main planetary winds are:
 - Trade Winds
 - Westerlies
 - Polar Easterlies

Source: ForumIAS

Q.6) "World Climate and Security report" is released by which of the following institution?

- a) World Bank
- b) IPCC
- c) UNEP
- d) The International Military Council on Climate and Security (IMCCS)

ANS: D

Explanation: The impact of climate change on water will increase the risk to global security in the next decade, according to a group of international security and military professionals.

- The International Military Council on Climate and Security (IMCCS) administered a survey in December 2019 to assess the perceptions of climate security risks among 56 security and military experts and practitioners from across the globe.
- The perception analysis was published in a World Climate and Security report, which claimed to be first of its kind.
- According to the report, 93 per cent military experts perceived climate change effects on water security would present significant or higher risks to global security by 2030.
- About 91 per cent perceived those risks would turn severe or catastrophic by 2040.

Source: ForumIAS



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Q.7) Which of the following theories/hypothesis explain the origin of the earth?

- 1. Nebular Hypothesis
- 2. Binary theories
- 3. Big-bang theory

Choose the correct code from below given options:

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: A large number of hypotheses were put forth by different philosophers and scientists regarding the origin of the earth.

- One of the earlier and popular arguments was by German philosopher Immanuel Kant. Mathematician Laplace revised it in 1796. It is known as Nebular Hypothesis.
- The hypothesis considered that the planets were formed out of a cloud of material associated with a youthful sun, which was slowly rotating. Later in 1900, Chamberlain and Moulton considered that a wandering star approached the sun.
- As a result, a cigar-shaped extension of material was separated from the solar surface. As the passing star moved away, the material separated from the solar surface continued to revolve around the sun and it slowly condensed into planets. Sir James Jeans and later Sir Harold Jeffrey supported this argument.
- At a later date, the arguments considered of a companion to the sun to have been coexisting. These arguments are called binary theories. The most popular argument regarding the origin of the universe is the Big Bang Theory. It is also called expanding universe hypothesis. Edwin Hubble, in 1920, provided evidence that the universe is expanding.

Source: ForumIAS

Q.8) Consider the following elements of the earth's crust:

- 1. Oxygen
- 2. Silicon
- 3. Aluminum
- 4. Iron

Which of the following code is correct ascending order of elements of the earth's crust?

- a) 1-2-3-4
- b) 2-3-4-1
- c) 4-3-2-1
- d) 3-2-4-1

ANS: C

Explanation: The earth is composed of various kinds of elements. These elements are in solid form in the outer layer of the earth and in hot and molten form in the interior. About 98 per cent of the total crust of the earth is composed of eight elements like oxygen, silicon, aluminium, iron, calcium, sodium, potassium and magnesium and the rest is constituted by titanium, hydrogen, phosphorous, manganese, sulphur, carbon, nickel and other elements. The Major Elements of the Earth's Crust Elements By Weight (%):

- 1. Oxygen- 46.60
- 2. Silicon- 27.72



- 3. Aluminum- 8.13
- 4. Iron- 5.00
- 5. Calcium- 3.63
- 6. Sodium- 2.83
- 7. Potassium- 2.59
- 8. Magnesium- 2.09
- 9. Others- 1.41

Source: ForumIAS

Q.9) "Lithification" process is commonly found in which of the following rocks?

- a) Igneous Rocks
- b) Sedimentary Rocks
- c) Metamorphic Rocks
- d) None of the above

ANS: B

Explanation: The word 'sedimentary' is derived from the Latin word sedimentum, which means settling.

- Rocks (igneous, sedimentary and metamorphic) of the earth's surface are exposed to denudation agents, and are broken up into various sizes of fragments.
- Such fragments are transported by different exogenous agencies and deposited. These deposits through compaction turn into rocks. This process is called lithification.
- In many sedimentary rocks, the layers of deposits retain their characteristics even after lithification.
- Hence, we see a number of layers of varying thickness in sedimentary rocks like sandstone, shale etc.

Source: ForumIAS

Q.10) Consider the following statements about latitudes:

- 1. The tropic of Capricorn is a line located in southern hemisphere at 23½°S, while tropic of cancer is a line located in Northern hemisphere at 23½°N.
- 2. Equator is also called as Great Circle.

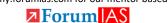
Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The five major lines of latitude, more commonly referred to as the five major circles of latitude, mark specific points on a globe or map of Earth. Four of the lines run parallel to the equator and sit north or south above or below the equator.

- The Arctic Circle is located at approximately 66.5 degrees north latitude, or 66.5 degrees north of the equator. This circle of latitude stretches through eight countries, including the United States, Canada, Greenland, Iceland, Norway, Sweden, Finland and Russia.
- The Antarctic Circle is located at approximately 66.5 degrees south Latitude, or 66.5 degrees south of the equator. This line, or circle, of latitude marks the start of the



southern area known as the Antarctic. The circle consists of only one continent, Antarctica.

- The Equator or great circle is possibly the most well-known circle of latitude is the line sitting at zero degrees latitude, the equator. The equator circles the globe with a circumference of nearly 25,000 miles, dividing the northern and the southern hemispheres. This line of latitude is the starting point when referring to other points of the globe in terms of degrees north and degrees south.
- The Tropic of Cancer is located at approximately 23.5 degrees north latitude, or 23.5 degrees north of the Equator. This line of latitude is the northern boundary of the area referred to as the tropics. During the summer solstice the sun is located immediately above the Tropic of Cancer. This line is the point farthest to the north at which the sun is hanging directly upward at noon.
- The Tropic of Capricorn is located at approximately 23.5 degrees south Latitude, or 23.5 degrees south of the equator. This line of latitude is the southern boundary of the area referred to as the tropics. This line marks the point farthest to the south at which the sun is hanging directly upward at noon. During the summer solstice of the Southern Hemisphere, the sun is located immediately above the Tropic of Capricorn.

Source: ForumIAS





Polity

Q.1 Consider the following statements about Central Bureau of Investigation (CBI):

- 1. It is governed by CBI Act 1946.
- 2. The jurisdiction of CBI is confined to Delhi and Union Territories.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Central Bureau of Investigation (CBI):

The CBI is governed by The Delhi Special Police Establishment (DSPE) Act, 1946. The jurisdiction of CBI is confined to Delhi and Union Territories under this Act. Section 5 of the DSPE Act empowers special police establishments (SPEs), including CBI, to investigate cases in the States.

Section 6 of the DSPE Act restricts the powers of SPEs under section 5 and puts the condition of the consent of the State Government to investigate any case in that state.

The CBI must mandatorily obtain the consent of the state government concerned before beginning to investigate a crime in a state. It can be either case-specific or general.

Source: EPIC November 2021

Q.2) Consider the following statements about the International Institute for Democracy and Electoral Assistance (IDEA):

- 1. IDEA is an intergovernmental organization that supports sustainable democracy worldwide.
- 2. IDEA was granted United Nations Observer Status in 2003.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About the International Institute for Democracy and Electoral Assistance (IDEA):

- IDEA is an intergovernmental organization that supports sustainable democracy worldwide.
- In 2003, IDEA was granted United Nations Observer Status.
- The organization is currently chaired by Australia and includes India as a memberstate. The institute is headquartered in Stockholm, Sweden.

Source: EPIC November 2021



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Q.3) Global State of Democracy Report is released by which of the following organisation?

- a) World Bank
- b) Freedom House
- c) International Institute for Democracy and Electoral Assistance.
- d) Both (a) and (c)

ANS: C

Explanation: The Global State of Democracy Report 2021 was released by the International Institute for Democracy and Electoral Assistance.

Key Findings of the Report

- The number of countries moving towards authoritarianism in 2020 was higher than that of countries going towards democracy. More countries than ever before are suffering from "democratic erosion" (decline in democratic quality).
- Around 70% of the global population now lives either in non-democratic regimes or in democratically backsliding countries.
- Democratically elected Governments, including established democracies, are increasingly adopting authoritarian tactics. This democratic backsliding has often enjoyed significant popular support Countries such as India and Brazil have been classified as some of the most worrying examples of Backsliding democracies.
- India has remained in the category of a mid-level performing democracy since 2000. Backsliding democracies are those that have experienced gradual but significant weakening of Checks on Government and Civil Liberties, such as Freedom of Expression and Freedom of Association and Assembly over time.
- The United States was added to the list of "backsliding" democracies for the first time, on account of the visible deterioration of its democratic credentials.
- The year 2020 was the worst on record, in terms of the number of countries affected by deepening autocratisation.
- Many democracies had proved to be resilient to the pandemic. Countries around the world learned to hold elections in exceedingly difficult condition.

Source: EPIC November 2021

Q.4) National MPI (Multidimensional Poverty Index) has been released by which of the following?

- a) NITI Aayog
- b) Ministry of health and family welfare
- c) Ministry of Rural Development
- d) Ministry of Social Justice and Empowerment

ANS: A

Explanation: About National MPI (Multidimensional Poverty Index):

- National MPI seeks to measure poverty across its multiple dimensions and in effect complements existing poverty statistics based on per capita consumption expenditure.
- The index has used the globally accepted and robust methodology developed by the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP) for Global MPI.
- The index is based on three equally weighted dimensions health, education and standard of living which in turn are represented by 12 indicators.



- The index is based on the findings of the fourth National Health Family Survey (2015-
- NITI Aayog has released India's first National MPI (multidimensional poverty index).

Source: EPIC November 2021

Q.5) "Partnerships for Affordable Healthcare Access and Longevity (PAHAL) - project" is often seen in news is launched with the help of which of the following nation?

- a) France
- b) Japan
- c) Israel
- d) United States of America

ANS: D

Explanation: Partnerships for Affordable Healthcare Access and Longevity (PAHAL) is USAID flagship innovative financing platform to promote health financing models and provide catalytic support to social enterprises (IBMs) for improving access to affordable and quality healthcare solutions for the urban poor communities, with a with a focus on Tuberculosis, Maternal and Child Health and WASH.

- PAHAL has built a platform that provides unparalleled access to social enterprises for reducing cost and improving access to quality healthcare services.
- US announced that it will provide an additional \$3 million to India, through its aid agency USAID, for mitigating the spread of Covid-19.
- In coordination with the Indian government, USAID is providing these funds to the Partnerships for Affordable Healthcare Access and Longevity (PAHAL) project.

Source: ForumIAS

Q.6) Which of the following are like the instrument of instructions, which were issued to the Governor-General and to the Governors of the colonies of India by the British Government under the Government of India Act of 1935?

- a) Fundamental Rights
- b) Fundamental duties
- c) Directive Principles of State Policy
- d) Objective Resolution

ANS: C

Explanation: The Directive Principles resemble the 'Instrument of Instructions' enumerated in the Government of India Act of 1935.

- In the words of Dr. B.R. Ambedkar, 'the Directive Principles are like the instrument of instructions, which were issued to the Governor-General and to the Governors of the colonies of India by the British Government under the Government of India Act of 1935.
- What is called Directive Principles is merely another name for the instrument of
- The only difference is that they are instructions to the legislature and the executive'.

Source: Laxmikanth.





Q.7) "To organise village panchayats and endow them with necessary powers and authority to enable them to function as units of self-government" – is described in which of the following Article?

- a) Article 36
- b) Article 37
- c) Article 38
- d) Article 40

ANS: D

Explanation: To organise village panchayats and endow them with necessary powers and authority to enable them to function as units of self-government (Article 40).

Source: Laxmikanth

Q.8) The funds under Statutory Grants to the states are charged upon which of the following?

- a) Consolidated Fund of India
- b) Contingency Fund of India
- c) Public Accounts of India
- d) Both A & B

ANS: A

Explanation: Article 275 empowers the Parliament to make grants to the states which are in need of financial assistance and not to every state.

Also, different sums may be fixed for different states. These sums are charged on the Consolidated Fund of India every year.

- Apart from this general provision, the Constitution also provides for specific grants for promoting the welfare of the scheduled tribes in a state or for raising the level of administration of the scheduled areas in a state including the State of Assam.
- The statutory grants under Article 275 (both general and specific) are given to the states on the recommendation of the Finance Commission.

Source: Laxmikanth

Q.9) With reference to the Veto power of President, which of the following veto power/powers is/are NOT enjoyed by President of India?

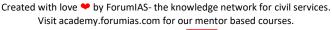
- 1. Absolute Veto
- 2. Pocket Veto
- 3. Suspensive Veto
- 4. Qualified Veto

Select the correct answer using the code given below:

- a) 1 and 4 only
- b) 3 and 4 only
- c) 4 only
- d) 1, 2 and 4 only

ANS. C

Explanation: When a bill is introduced in the Parliament, Parliament can pass the bill and before the bill becomes an act, it has to be presented to the Indian President for his approval.





It is up to the President of India to reject the bill, return the bill or withhold his/her assent to the bill. The choice of the President over the bill is called the veto power.

The veto power enjoyed by the executive in modern states can be classified into the following four types:

- Absolute veto, which is, withholding of assent to the bill passed by the legislature.
- Qualified veto, which can be overridden by the legislature with a higher majority.
- Suspensive veto, which can be overridden by the legislature with an ordinary majority.
- Pocket veto, which is, taking no action on the bill passed by the legislature. Of the above four, the President of India is vested with three– absolute veto, suspensive veto and pocket veto. There is no qualified veto in the case of Indian President; it is possessed by the American President.

Source: Laxmikanth

Q.10) The total number of ministers, including the Prime Minister, in the Council of Ministers shall not exceed 15% of the total strength of the Lok Sabha – provision is added to Constitution by which amendment?

- a) 65th Amendment
- b) 86th Amendment
- c) 89st Amendment
- d) 91st Amendment

ANS: D

Explanation: The total number of ministers, including the Prime Minister, in the Council of Ministers shall not exceed 15% of the total strength of the Lok Sabha. This provision was added by the 91st Amendment Act of 2003.

Source: Laxmikanth.





Economy

Q.1) Which of the following is/are part of "revenue expenditure"?

- 1. Subsidies forwarded to all sectors by the government.
- 2. Postal Deficits of the government.
- 3. Grants given by the government to Indian states and foreign countries.

Select the correct answer using the codes given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: All expenditures incurred by the government are either of revenue kind or current kind or compulsive kind. The basic identity of such expenditures is that they are of consumptive kind and do not involve creation of productive assets. They are either used in running of a productive process or running a government. A broad category of things that fall under such expenditures in India are:

- Interest payment by the government on the internal and external loans;
- Salaries, Pension and Provident Fund paid by the government to government employees;
- Subsidies forwarded to all sectors by the government;
- Defense expenditures by the government;
- Postal Deficits of the government;
- Law and order expenditures (i.e., police & paramilitary);
- Expenditures on social services (includes all social sector expenditures as education, health care, social security, poverty alleviation, etc.) and general services (tax collection, etc.):
- Grants given by the government to Indian states and foreign countries.

Source: Ramesh Singh

Q.2) Consider the following statements regarding "Pigovian Tax":

- 1. It is a tax placed on any good which creates negative externalities.
- 2. Carbon tax is an example of Pigovian Tax.

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: A Pigovian tax is a tax placed on any good which creates negative externalities.

- The aim of a Pigovian tax is to make the price of the good equal to the social marginal cost and create a more socially efficient allocation of resources.
- It is named after the economist Arthur Pigou who developed the concept of externalities in the 1920s.



 A carbon tax aims to make individuals and firms pay the full social cost of carbon pollution. In theory, the tax will reduce pollution and encourage more environmentally friendly alternatives.

Source: Ramesh Singh

Q.3) With reference to the "Tax-to-GDP" ratio of India, which of the following statements is/are correct?

- 1. Higher the tax to GDP ratio the better financial position the country will be in.
- 2. India's Tax-to-GDP ratio is higher than the average OECD Tax-to-GDP ratio.

Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: Tax-to-GDP ratio represents the size of a country's tax kitty relative to its GDP.

- It is a representation of the size of the government's tax revenue expressed as a percentage of the GDP.
- Higher the tax to GDP ratio the better financial position the country will be in.
- The ratio represents that the government is able to finance its expenditure. A higher tax to GDP ratio means that the government is able to cast its fiscal net wide.
- It reduces a government's dependence on borrowings.
- Although India has improved its tax-to-GDP ratio in the last six years, it is still far lower than the average OECD ratio which is 34 per cent.
- India's tax-to-GDP ratio is lower than some of its peers in the developing world.
- Developed countries tend to have higher tax-to-GDP ratio.

Source: The Hindu

Q.4) "Internal Debt" of India consists of which of the following?

- 1. Dated securities
- 2. External Assistance
- 3. Securities issued to International Financial Institutions
- 4. Short term borrowings

Select the correct answer using the codes given below:

- a) 1, 2, 3 and 4
- b) 1, 2 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2 and 3 only

ANS: C

Explanation: Internal debt of India consists of:

- Dated government securities or G-secs.
- Treasury Bills or T-bills
- External Assistance
- Short term borrowings
- Public Debt definition by Union Government

Source: Economic Survey



Q.5) The term "Supplemental Reserve Facility (SRF)" is related to which of the following?

- a) AIIB
- b) European Union Investment Bank
- c) International Monetary Fund
- d) World Bank

ANS: C

Explanation: In December 1997, the Executive Board (IMF) opened a new lending window the SRF—for member countries experiencing exceptional balance of payments problems owing to a large short-term financing need resulting from a sudden and disruptive loss of market confidence reflected in pressure on the capital account and themember's reserves.

Source: TMH Ramesh Singh

Q.6) The term "Harmonized System (HS)" often seen in news is related to which of the following?

- a) Industrial Sector
- b) International product nomenclature
- c) International Financial Services
- d) Global Infrastructure Investment

ANS: B

Explanation: The Harmonized System, or simply 'HS', is a six-digitidentification code developed by the World Customs Organization (WCO).

- Called the "universal economic language" for goods, it is a multipurpose international product nomenclature.
- Over 200 countries use the system as a basis for their customs tariffs, gathering international trade statistics, making trade policies, and for monitoring goods.
- The system helps in harmonizing of customs and trade procedures, thus reducing costs in international trade.

Source: The Hindu

Q.7) Consider the following statements regarding Indian Food processing sector:

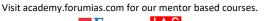
- 1. India enjoys a 'competitive advantage' in food processing sector.
- 2. National Mission on Food Processing (NMFP) was launched as a centrally sponsored scheme to tap the potential food processing sector.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: India enjoys a 'competitive advantage' in food processing sector given its huge production base of a number of agricultural, dairy, fishing and horticultural items.





- To ensure that this sector gets the stimulus it deserves, the MoFPI has been implementing a number of schemes for infrastructured evelopment, technology upgradation and modernisation, human resources development and R&D in this sector.
- In the context of the 12th Plan, it is felt that there is a need to decentralise the implementation of schemes through involvement of the states/UTs for better outreach, supervision, monitoring and ensuring job creation.
- Accordingly, National Mission on Food Processing (NMFP) was launched as a centrally sponsored scheme in 2012.
- The NMFP contemplates establishment of a National Mission as well as corresponding Missions at the state and district levels.

Source: TMH Ramesh Singh

Q.8) The "Draft Scheme of Reconstruction" is recently in news is related to which of the following?

- a) Banking
- b) Railways
- c) Roadways
- d) Port rejuvenation

ANS: A

Explanation: RBI has placed the financially troubled Yes Bank under a moratorium (temporary suspension).

- After placing this bank under a moratorium, the RBI announced a draft Scheme of Reconstruction.
- This scheme entails the State Bank of India (SBI) investing capital to acquire a 49% stake in the restructured private lender.

Source: The Hindu

Q.9) Consider the following statements regarding Global Coalition for Disaster Resilient Infrastructure (CDRI):

- 1. It envisions enabling measurable reduction in infrastructure losses from disasters and extreme climate events.
- 2. It is launched by French Government.

Which of the statements given above is/arenot correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: The Prime Minister of India launched the Coalition for Disaster-Resilient Infrastructure (CDRI) at the UN Secretary-General's Climate Action Summit in New York, US.

The fledgling partnership has a secretariat in Delhi, supported by the UN Office for Disaster Risk Reduction (UNDRR), to enable knowledge exchange, technical support and capacity building.

 CDRI's mission is to rapidly expand the development of resilient infrastructure and retrofit existing infrastructure for resilience, and to enable a measurable reduction in infrastructure losses.



• Its mission statement notes that, in recent weather and climate-related disasters, up to 66% of public sector losses were related to infrastructure damage.

The partnership will be working in the areas of governance and policy, emerging technology, risk identification and estimation, recovery and reconstruction, resilience standards and certification, finance, and capacity development.

Source: EPIC November 2021

Q.10) With reference to the "National Infrastructure Pipeline (NIP)", which of the following statements is/are correct?

- 1. It is launched for the period of 10 years starting from 2020 to 2030.
- 2. It is jointly funded by the Central Government, State Government, and the private sector. Select the correct answer using the codes given below:
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: GoI launched the National Infrastructure Pipeline (NIP) for the FY 2020-2025 to facilitated world class infrastructure projects to be implemented.

- This first of its kind initiative will boost the economy, generate better employment opportunities, and drive the competitiveness of the Indian economy.
- It is jointly funded by the Central Government, State Government, and the private sector
- The NIP was launched with the projected infrastructure investment of 111 lakhcrore(\$1.5 trillion) during the period 2020-2025.
- The sectors like energy, roads, urban infrastructure, railways have a major share in the NIP.

Source: EPIC November 2021





Environment

Q.1) Consider the following statements regarding seed banks:

- 1. Seeds are stored under low temperatures that keep seeds dormant till they are needed for replanting.
- 2. Seeds that are stored in seed banks can be made easily available to scientists and researchers who wish to study these seeds especially if such research could lead to improvement of crop production.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The Importance of Seed Banks

- Just as human beings and animals are adapted to different conditions for survival, so are crops. Different types of the same species exist due to this adaptive nature. Therefore, it is of critical necessity that such diversity is preserved.
- The world has witnessed radical climatic change that has been accelerated by increased industrial pollution. Crop extinction is inevitable with such extreme changes. If seeds are stored in seed banks, the danger of total elimination of certain species of crops is eliminated.
- Natural disasters are unforeseen events that could lead to complete annihilation of crops from the face of the earth. The foresight of keeping seeds in a seed bank could save such a situation.
- Seeds are stored under low temperatures that keep seeds dormant till they are needed for replanting.
- Crop diseases are highly contagious and very deadly to plants. A serious breakout could completely eliminate crops. Where diseases have ravaged crops and left no traces that farmers could start on, seed banks can intervene and provide them with seeds that will enable them start on a clean slate.
- Seeds that are stored in seed banks can be made easily available to scientists and researchers who wish to study these seeds especially if such research could lead to improvement of crop production.
- Man-made disasters such as war and oil spills could lead to the annihilation of crops. Counties that are engaged in war make it difficult for farmers to continue farming and it's easy for crops to disappear. Once peace is restored, seeds can be retrieved from seed banks and replanted.

Source: ForumIAS



Q.2) Consider the following statements regarding Snow leopard:

- 1. International Snow Leopard Day came into being with the adoption of the Bishkek Declaration.
- 2. It is the National Heritage Animal of Pakistan and Afghanistan.
- 3. Hemis National Park is the Snow Leopard capital of the world.

Which of the following statement is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: Snow leopard

- International Snow Leopard Day came into being with the adoption of the Bishkek Declaration.
- It is the National Heritage Animal of Pakistan and Afghanistan.
- Hemis National Park is the Snow Leopard capital of the world.
- India has been conserving snow leopard and its habitat through the Project Snow Leopard (PSL).
- India is also party to the Global Snow Leopard and Ecosystem Protection (GSLEP) Programme since 2013.
- In India, it inhabits the higher Himalayan and trans-Himalayan landscape in the five states of Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.

Source: ForumIAS

Q.3) Consider the following statements regarding Biopiracy:

- 1. It refers to the appropriation of traditional knowledge of biodiversity by outsiders and companies.
- 2. It includes fraudulent patenting of biological resources for profit.

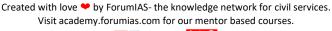
Which of the above statements is/are correct?

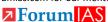
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Biopiracy

- It is often assumed that traditional knowledge is in public domain and the local communities have no claims over it. Hence, such knowledge can be easily misappropriated.
- Biopiracy here refers to the appropriation of traditional knowledge of biodiversity by outsiders and companies and it includes fraudulent patenting of such biological resources for profit.
- Some examples of **biopiracy** in India
 - > **Turmeric:** In 1995, two NRIs in the US were awarded a patent for the wound-healing property of turmeric. India's Council of Scientific and Industrial Research contested the patent on the argument that the medicinal properties of turmeric were known to Indians since centuries. The patent was cancelled.





- **Basmati Rice:** In 1997, the US firm Rice Tec obtained patents for Basmati Rice line and grains, arguing that they invented the variety. Due to massive protests, some of their claims were rejected.
- Neem: In 1994, the European Patent Office awards a patent to the US firm, W.R. Grace for a method of controlling fungi on plants by the aid of Neem oil. NGOs and Indian farmers successfully contested this patent.
- It is not always easy to fight against biopiracy. In this era of globalization, it is important to record all such traditional and local knowledge of biodiversity.

Source: ForumIAS

Q.4) Which of the following statements is/are incorrect regarding endemism?

- 1. It is an ecological classification that describes the range or distribution of a species, or group of species
- 2. The term endemism can be applied to the species only.

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Endemism:

- Endemism is the condition of being endemic, or restricted in geographical distribution to an area or region. The area or region can vary in size, and is defined or identified in different ways.
- Endemism is an ecological classification in that it describes the range or distribution of a species, or group of species.
- The term endemism can applied to many things, including diseases and natural phenomenon. Endemism in these cases refers to the "normal" or standard level of some measured observation within a specific geographic region or area.
- Endemism is not to be confused with indigenous, a term which refers to the origins of a species. Indigenous refers to where a group originated.
- A species can be both endemic and indigenous to an area. However, some species thrive and exceed the bounds of their original indigenous location. This means that the species is no longer endemic, but is still indigenous to the original area.

Source: ForumIAS

Q.5) Consider the following statements

- 1. Fly ash is a secondary pollutant.
- 2. O_3 in the stratosphere is generated in the presence of light and it is a secondary pollutant.

Which of the above statement/s is/are correct?

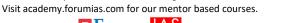
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation:

Fly Ash:

- Fly ash a fine powder, which is the **by-product of burning pulverised** coal in thermal power plants.
- It is a type of Suspended Particulate Matter so it is primary pollutant.





• Composition: Fly ash includes substantial amounts of oxides of Si, Al and Ca. Heavy toxic elements like Arsenic, Boron, Chromium, lead etc. are also found in trace concentrations.

Ozone (O₃):

- Ozone in the lower atmosphere is formed from molecular O₂ when in the presence of sunlight when Reactive Oxygen Species are generated. ROS combines with O₂ and form Tropospheric Ozone. Thus, O3 is generated in the troposphere and is termed as "Bad Ozone".
- It is a **secondary pollutant** as it is normally not present in atmosphere and generated from other primary source.

Source: ForumIAS

Q.6) Consider the following statements regarding noise pollution.

- 1. The World Health Organization recommends that the sound level indoors should be less than 30 dB.
- 2. Silence Zone is an area comprising not less than 100 metres around hospitals, courts, etc Which of the above statements is/are correct?
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation:

Noise Pollution (Control and Regulation) Rules, 2000 define ambient noise levels for various areas as

Industrial Area
Commercial Area
Residential Area
Silence Zone

75 dB, day time; 70 dB, night time
65 dB, day time; 55 dB, night time
55 dB, day time; 45 dB, night time
50 dB, day time; 40 dB, night time

Noise Pollution

- Noise pollution is an unpleasant noise created by people or machines that can be annoying, distracting, intrusive, and/or physically painful.
- Sound is measured in decibels (dB). An increase of about 10 dB is approximately double the increase in loudness.
- The World Health Organization recommends that the sound level indoors should be less than 30 dB.
- The Government of India on Mar 2011 launched a Real time Ambient Noise Monitoring Network. Under this network, in phase- I, five Remote Noise Monitoring Terminals each have been installed in different noise zones in seven metros (Delhi, Hyderabad, Kolkata, Mumbai, Bangalore, Chennai and Lucknow).
- In Phase II another 35 monitoring stations will be installed in the same seven cities. Phase III will cover installing 90 stations in 18 other cities.
- Phase-III cities are Kanpur, Pune, Surat, Ahmadabad, Nagpur, Jaipur, Indore, Bhopal, Ludhiana, Guwahati, Dehradun, Thiruvananthpuram, Bhubaneswar, Patna, Gandhinagar, Ranchi, Amritsar and Raipur.

Source: ForumIAS



Q.7) Consider the following statements about Kaiser-i-Hind butterfly:

- 1. It is State butterfly of Kerala.
- 2. It is an Indicator Species.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Kaiser-i-Hind:

- Kaiser-i-Hind is State butterfly of Arunachal Pradesh.
- Kaiser-i-Hind (Teinopalpus imperialis) literally means Emperor of India.
- The Butterfly is found in Nepal,
- Bhutan, Myanmar, Laos, Vietnam and Southern China.
- In India, it is found in six States along the eastern
- Himalayas at elevations from 6,000-10,000 feet in well-wooded terrain.
- It flies in the canopy of broad-leaved temperate evergreen forests.
- It is an Indicator Species and the presence of this butterfly indicates the existence of a good forest ecosystem.
- Its Protection Status is IUCN Status: Near Threatened, CITES: Appendix II, Wildlife (Protection) Act, 1972: Schedule II.

Source: EPIC November 2021

Q.8) Climate Change Performance Index is released by which of the following organisation?

- a) UNEP
- b) IPCC
- c) Germanwatch
- d) Both (b) and (c)

ANS: C

Explanation: About CCPI:

- The Climate Change Performance Index 2022 has been released by Germanwatch, the New Climate Institute, and the Climate Action Network.
- Climate Change Performance Index (CCPI) is an independent monitoring tool for tracking the climate protection performance of 60 countries and the EU covering 92% of the Global Greenhouse Gas Emissions.
- It aims to enhance transparency in international climate politics and enable comparison of climate protection efforts and progress made by individual countries.
- The first three ranks of the overall rankings were kept empty because no country had performed well enough in all index categories to achieve an overall very high rating. Denmark has been placed 4th. India has been ranked in 10th place. China and the US were ranked 37th and 55th respectively.

Q.9) Consider the following statements about Climate TRACE:

- 1. It is a global coalition of non-profits, tech companies, and universities.
- 2. It uses Artificial Intelligence (AI) and machine learning to analyze data from satellite imagery.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Climate TRACE:

- Climate TRACE (Tracking Real-Time Atmospheric Carbon Emissions) was launched in 2021 before COP26. It is a global coalition of non-profits, tech companies, and universities. It has been created to collect and share greenhouse gas emissions from anthropogenic (human) activities to facilitate climate action.
- It uses Artificial Intelligence (AI) and machine learning to analyze data from satellite imagery and sensor data to come up with accurate emissions estimates in near-real-time.
- Climate TRACE is the world's first comprehensive accounting of GHG emissions based primarily on direct, independent observation.

Source: EPIC November 2021

Q.10) Which of the following country recently passed Financial Sector (Climate-related Disclosures and Other Matters) Amendment Bill?

- a) New Zealand
- b) Brazil
- c) Australia
- d) Bhutan

ANS: A

Explanation:

- New Zealand Parliament has passed the Financial Sector (Climate-related Disclosures and Other Matters) Amendment Bill. With this, New Zealand has become the first country in the world to have a climate-related disclosure law in place.
- The bill requires banks, insurers, firms and investment managers to report the impacts of climate change on their business. These disclosures will become mandatory from 2023.



History/Art and Culture

Q.1) Consider the following statements about Rani Kamlapati:

- 1. Recently Bhopal's Habibganj railway station is named after Rani Kamlapati.
- 2. Rani Kamalapati was the 18th Century Gond Queen.
- 3. She did great work in the area of water management and set up parks and temples.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: About Rani Kamalapati:

- Madhya Pradesh Government has renamed the Bhopal's Habibganj railway station after Rani Kamlapati.
- Rani Kamalapati was the 18th Century Gond Queen of the region. She was the widow of Gond ruler Nizam Shah, chief of Ginnorgarh.
- She is known to have shown great bravery in facing aggressors during her reign after her husband was killed.
- Kamlapati is also claimed to be the "last Hindu queen of Bhopal" who did great work in the area of water management and set up parks and temples.

Source: EPIC November 2021

Q.2) Adi Shankaracharya propounded which of the following philosophy?

- a) Advaita Vedanta
- b) Vishishtadvaita
- c) Dvaita
- d) Dvaitadvaita

ANS: A

Explanation: About Adi Shankaracharya:

Adi Guru Shankaracharya was an 8th-century Indian spiritual leader and philosopher. He is said to have been born in Kaladi village on the bank of the river Periyar in Kerala.

Philosophy Advaita Vedanta:

- Adi Shankaracharya propounded the philosophy of Advaita Vedanta which articulates a philosophical position of radical non dualism, a revisionary worldview which it derived from the ancient Upanishadic texts.
- According to the philosophy, the whole world is a manifestation of the one and only God (brahman) and all diversity we see is delusion (maya) as the result of ignorance (advidya).
- Established Mathas: Shankaracharya established Mathas in Sringeri, Dwaraka, Puri, and Joshimath for the spread of Advaita Vedanta.





Q.3) The poetic works 'Maneesha Panchakam' and 'Saundaryalahiri' are authored by whom among the following?

- a) Nimbarka
- b) Madhavacharya
- c) Ramanujacharya
- d) Adi Shankaracharya

ANS: D

Explanation: Major Works of Adi Shankaracharya

- He authored 116 works. Among them, the celebrated commentaries (bhashyas) are on Upanishads, the Brahma Sutra, and the Gita. His famous poetic works include Maneesha Panchakam and Saundaryalahiri.
- He authored the Vivekachudamani. It spells out the qualifications required in a student of Vedanta.
- He also composed the Kanakadhara Stotram, following which there was a rain of golden amlas which brought prosperity to the household.
- Further, he also composed texts like Shankara Smrithi which seeks to establish the social supremacy of Nambuthiri Brahmins.

Source: EPIC November 2021

Q.4) Heraka Religious movement was started by whom among the following?

- a) Rani Gaidinliu
- b) Birsa Munda
- c) Sree Narayana Guru
- d) Debendranath Tagore

ANS: A

Explanation: About Rani Gaidinliu:

Rani Gaidinliu was born on January 26, 1915, in the present-day Tamenglong district of Manipur. She belonged to the Rongmei Naga tribe.

About Heraka Movement:

- At the age of 13, Rani Gaidinliu joined the Heraka Religious movement of her cousin Haipou Jadonang.
- Heraka was a socio-religious movement that arose in the 1920s in the Zeliangrong territory. It was started by Jadonang to resist the infiltration of Christian missionaries as well as the reforms imposed by the British government.
- However, in 1931, Jadonang was arrested by the British and was hanged for opposing colonial rule. To ensure the movement does not die down, Gaidinliu took up the movement.
- She openly rebelled against British rule by telling the Zeliangrong people not to pay taxes. She also received donations from the local Nagas, many of whom also joined her as volunteers.
- She was then arrested in 1932 and was sentenced to life imprisonment by the British rulers. Between 1932 and 1947, the Naga freedom fighter was kept at several prisons across the Northeast.
- Acknowledging her role in the struggle against the British, Jawaharlal Nehru called her the "Daughter of the Hills" and gave her the title "Rani" or queen.



Q.5) Consider the following pairs:

Puppetry	State
1. Yampuri	Bihar
2. Tholpavakkoothu	Kerala
3. Kundhei	Odisha

Which of the pairs given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: B

Explanation: Tholpavakkoothu:

- For the first time, Tholpavakkoothu, the famous shadow leather puppets will tell stories of the epic Ramayana with the help of robots.
- The first robotic leather puppet was installed at the Palakkad District Heritage
- Tholpavakkoothu or shadow puppetry is a temple art form which is prevalent in the Bhagavathy temples (mother Goddess) in Palakkad district and nearby regions in Kerala.

Other puppetries

- TholuBommalata, Andhra Pradesh's shadow theatre has the richest and strongest tradition. The puppets are large in size and have jointed waist, shoulders, elbows and knees. They are coloured on both sides.
- The traditional Rod puppet of Bihar is known as Yampuri. These puppets are made of wood. Unlike the traditional Rod puppets of West Bengal and Orissa, these puppets are in one piece and have no joints.
- The string puppets of Orissa are known as Kundhei. Made of light wood, the Odisha puppets have no legs but wear long flowing skirts. They have more joints and are, therefore, more versatile, articulate and easy to manipulate.

Source: Forum IAS

Q.6) Which of the following pairs is/are correctly matched?

Portal Purpose

1.E-Medha Digitized Manuscripts and catalogues of Ayurveda

2.AMAR Catalogue of Indian Medical Heritage Books

3.SHAI Showcase inscriptions

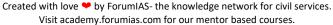
Select the correct answer using the codes given below:

- a) 1 and 2 only
- b) 2 only
- c) 1 and 3 only
- d) 3 only

ANS: D

Explanation: Portals in India

• **E-Medha** (electronic Medical Heritage Accession) Portal- It is an online public access catalog for more than 12000 Indian medical heritage books through NIC's egranthalaya platform.





- AMAR (Ayush Manuscripts Advanced Repository) Portal- This Portal is of immense value and it has digitized information on rare and hard to find Manuscripts and catalogues of Ayurveda, Yoga, Unani, Siddha, SowaRigpa in libraries or in individual collections across India or in other parts of the world.
- Ayurveda Dataset on Clinical Trial Registry of India (CTRI)- CTRI is a primary Register of Clinical Trials under the world health Organization's International Clinical Trials Registry Platform. Creation of Ayurveda Data Set in CTRI facilitates the usage of Ayurveda Terminologies to record clinical study based on Ayurveda interventions. This is a great step towards a worldwide visibility for Ayurveda based Clinical Trials.
- **CCRAS-Research Management Information System** A collaborative effort of ICMR and CCRAS, this portal will be a one stop solution for Research and Development in Ayurveda based studies. Free of cost research guidance by experienced Scientists, Clinicians of Ayurveda can be availed through this portal. Research tools, reference material are also in place in this portal.
- SHAI (Showcase of Ayurveda Historical Imprints) Portals- This portal showcases inscriptions, Archeo-botanical Information, Sculptures, Philological sources and advanced Archeo Genetic studies. This portal will be of tremendous use in understanding of Indian Knowledge system with a focus on indigenous health care practices.

Source: Forum IAS

Q.7) Which of the following statements regarding National Mission on Cultural Mapping is/are correct?

- 1. It aims to create a National Register on Built Heritage and Sites.
- 2. It will be implemented by Indira Gandhi National Centre for the Arts (IGNCA).

Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About National Mission on Cultural Mapping

- National Mission on Cultural Mapping (NMCM) was set up by the Ministry of Culture in 2017.
- Its objective is to build a comprehensive database of artists, art forms and other resources from organisations.
- It is aimed at addressing the necessities of preserving the threads of rich Indian Art and Cultural Heritage, converting vast and widespread cultural canvas of India into an objective Cultural Mapping while creating a strong "Cultural Vibrancy" throughout the nation.
- It encompasses data mapping, demography building, formalizing the processes and bringing all cultural activities under one umbrella for better results.
- The work on creating a database for folk arts and mapping of heritage of villages would be carried out over five years (From 2017).
- Under this Mission, at broad-level, there are three important objectives as follows:
- National Cultural Awareness Abhiyan (HamariSanskritiHamariPahchanAbhiyan OR Our Culture Our Identity)
- Nationwide Artist Talent Hunt/Scouting Programme (SanskritikPratibhaKhojAbhiyan)



• National Cultural Workplace: Centralized Transactional Web Portal with database and demography of cultural assets and resources including all art forms and artists.

National Mission on Monuments and Antiquities aims to create a National Register on Built Heritage and Sites.

Source: Forum IAS

Q.8) Consider the following statements regarding Creative Cities Network:

- 1. It was created by UNESCO to promote cooperation among cities that have identified creativity as a strategic factor for sustainable urban development.
- 2. Srinagar is the first Indian city that has been added to this network.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: UNESCO Network of Creative Cities (UCCN)

- United Nations Educational, Scientific and Cultural Organization (UNESCO) recently designated Srinagar as a Creative City of Craft and Folk Arts as part of UNESCO Creative Cities Network (UCCN).
- With this, the capital city of Jammu and Kashmir has entered the club of 295 creative cities network across the world. After Mumbai (City of Film), Chennai (City of Music), Hyderabad(City of Gastronomy), Varanasi(City of Music), and Jaipur (City of Crafts and Folk Arts), Srinagar is the sixth Indian city to achieve this distinction.
- The UNESCO Creative Cities Network (UCCN) was created in 2004 to promote cooperation with and among cities that have identified creativity as a strategic factor for sustainable urban development.
- The cities designated as creative cities work together towards a common objective of "placing creativity and cultural industries at the heart of their development plans at the local level and cooperating actively at the international level".
- UNESCO designates the creative cities in seven fields Craft, Folk Art, Media Arts, Film Design, Gastronomy, Literature, and Music.

Source: Forum IAS

Q.9) Which of the following statements regarding 'MedaramJathara' is not correct?

- a) It is a state festival of Telangana.
- b) It is the largest fair of India which is celebrated by the Koya tribal community.
- c) It is a festival with no Vedic or Brahmanic influence.
- d) Medaram is a remote place in the Eturnagaram Wildlife Sanctuary, a part of Dandakaranya, the largest surviving forest belt in the Mulugu district of Telangana.

ANS: B

Explanation: About MedaramJathara

- The MedaramJathara is the second-largest fair of India, after the KumbhMela, celebrated by the second-largest Tribal Community of Telangana – the Koya tribe for four days.
- It is a tribal festival of honoring the goddesses celebrated in the state of Telangana, India.



- The Jathara begins at Medaram in Tadvai Mandal in Mulugu district.
- It commemorates the fight of a mother and daughter, Sammakka and Saralamma, with the reigning rulers against an unjust law. It is believed that after KumbhaMela, the MedaramJathara attracts the largest number of devotees in the country.
- Medaram is a remote place in the Eturnagaram Wildlife Sanctuary, a part of Dandakaranya, the largest surviving forest belt in the Mulugu.
- It is a State Festival of Govt. of Telangana and is a festival with no Vedic or brahmanic influence.

Source: Forum IAS

Q.10) Who among the following freedom fighter was called 'Prince among the Patriots' by Gandhi?

- a) Bhagat Singh
- b) Subhash Chandra Bose
- c) GopaldasAmbaidas Desai
- d) Jawaharlal Nehru

ANS: B

Explanation: About Subhash Chandra Bose

- Subhash Chandra Bose had always shown a militant streak and reacted violently to any insult of Indians by the Europeans. He passed the Indian Civil Services examination securing fourth position but resigned from the service in 1921 to join the struggle for freedom by becoming a member of the Congress. His political guru was Chittaranjan Das. He became mayor of Calcutta in 1923.
- Bose left Congress after he could not follow Gandhi's ways.
- Bose was arrested in July when he protested and tried to launch a Satyagraha against a proposed monument for Holwell in Calcutta. He was released from prison and placed under house arrest in December 1940 after a hunger strike. In January 1941, it was reported that Bose had escaped. On January 26, 1941, he reached Peshawar under the pseudo-name Ziyauddin, helped by Bhagat Ram.
- He was reported to have approached Russia for help in the Indian struggle for freedom from Britain. But, in June 1941, Russia joined the Allies in the war, which disappointed Bose. He then went to Germany.
- Bose met Hitler under the pseudo name, Orlando Mazzotta. With the help of Hitler, the 'Freedom Army' (MuktiSena) was formed which consisted of all the prisoners of war of Indian origin captured by Germany and Italy. Dresden, Germany was made the office of the Freedom Army. Bose came to be called 'Netaji' by the people of Germany. He gave the famous slogan, 'Jai Hind' from the Free India Centre, Germany.
- In early 1943, he left Germany and travelled by German and later by Japanese submarines to reach Japan and then Singapore in July of the same year. In July 1943, he got control of the Indian Independence League and the INA.
- In 1942, Gandhi called Bose the "Prince among the Patriots". When the death of Bose was reported, Gandhi said that Netaji's "patriotism is second to none. His bravery shines through all his actions. He aimed high and failed. But who has not failed." On another occasion Gandhi said, "Netaji will remain immortal for all time to come for his service to India."

Source: Forum IAS



Schemes/Programs/Institutions

Q.1) Consider the following statements about Vernacular Innovation Program (VIP):

- 1. It is launched by Atal Innovation Mission (AIM) and the NITI Aayog.
- 2. It will enable innovators and entrepreneurs in India to have access to the innovation ecosystem in 22 scheduled languages.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Vernacular Innovation Program (VIP):

- Atal Innovation Mission (AIM) and the NITI Aayog have launched the Vernacular Innovation Program (VIP) to enable innovators and entrepreneurs in India to have access to the innovation ecosystem in 22 scheduled languages by the Government of India
- AIM will be training a Vernacular Task Force (VTF) in each of the 22 scheduled languages with each task force consisting of vernacular language teachers, subject experts and technical writers.
- According to the 2011 census, only 10.4% of Indians speak English, most as their second, third, or fourth language. Only 0.02% of Indians spoke English as their first language.

Source: EPIC December 2021

Q.2) Innocenti Declaration is related to which of the following?

- a) Breastfeeding
- b) Breast cancer
- c) Ovarian cancer
- d) Postpartum hemorrhage

ANS: A

Explanation: About Innocenti Declaration:

- It was signed in August 1990 during the WHO and UNICEF policymakers' meeting on 'Breastfeeding in the 1990s: A Global Initiative' in Italy.
- The Innocenti Declaration says that all women should be enabled to practise exclusive breastfeeding and all infants should be fed exclusively on breastmilk up to 4-6 months of age 'as a global goal for optimal maternal and child health and nutrition'.

Source: EPIC December 2021



Q.3) Consider the following statements about Atmanirbhar Hastshilpkar Scheme:

- 1. It is launched by Ministry of Social Justice.
- 2. It aims is to develop the artisans of the SC and ST Community by providing them financial assistance in the form of term loans.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: About Atmanirbhar Hastshilpkar Scheme:

- North Eastern Development Finance Corporation Ltd. (NEDFi) has launched it for the grass root artisans in the North East Region.
- Its aim is to develop the artisans of the North Eastern Region by providing them financial assistance in the form of term loans for income-generating activities like setting up, expansion, modernization and other activities related to the sector.

Source: EPIC December 2021

Q.4) Pragati Scholarship Scheme which aims is to provide assistance for the advancement of Girls pursuing Technical Education, is launched by which of the following institutions/ministry?

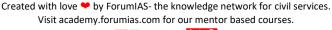
- a) All India Council for Technical Education (AICTE)
- b) Ministry of women and child development
- c) NCERT
- d) Ministry of Skill Development

ANS: A

Explanation: About Pragati Scholarship Scheme:

- It was launched by All India Council for Technical Education (AICTE) in 2014-15.
- The Nodal Ministry is Ministry of Education.
- Its aims are to provide assistance for the advancement of Girls pursuing Technical Education.
- Under the scheme, a sum of Rs. 50,000/- per annum is disbursed to selected girl students based on certain criteria.

Source: EPIC December 2021





Q.5) Which of the following parameters are consists of International Monetary Fund (IMF) Quota Formula?

- 1. Weighted average of GDP.
- 2. Openness.
- 3. Contribution to IMF.
- 4. Green lending.
- 5. International reserves.

Select the correct answer using the code given below:

- a) 1, 2, 3, 4 and 5
- b) 1, 2 and 5 only
- c) 1, 2, 4 and 5 only
- d) 1, 2, 3 and 4 only

ANS: B

Explanation: When a country joins the IMF, it is assigned an initial quota in the same range as the quotas of existing members of broadly comparable economic size and characteristics.

- The IMF uses a quota formula to help assess a member's relative position.
- The current quota formula is a weighted average of GDP (weight of 50 percent), openness (30 percent), economic variability (15 percent), and international reserves (5 percent).
- For this purpose, GDP is measured through a blend of GDP—based on market exchange rates (weight of 60 percent) and on PPP exchange rates (40 percent).
- The formula also includes a "compression factor" that reduces the dispersion in calculated quota shares across members.

Source: IMF

Q.6) Consider the following statements regarding "The World Commission on Environmental Law (WCEL)":

- 1. It advances environmental law around the globe by providing specialized knowledge and assistance to strengthen the legal foundations of the conservation of nature and sustainable development.
- 2. WCEL functions as an integral part of the International Court of Justice (ICJ).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: About the World Commission on Environmental Law (WCEL):

- It advances environmental law around the globe by providing specialized knowledge and assistance to strengthen the legal foundations of the conservation of nature and sustainable development through the conceptual advancement of environmental principles, norms, and laws, and by building the capacity of communities to benefit from the environmental rule of law.
- WCEL functions as an integral part of the IUCN Environmental Law Programme (ELP) that includes close collaboration with the Environmental Law Centre (ELC).

Source: UNFCCC



Q.7) Consider the following statements regarding the Agreement on Prohibition of Attacks against Nuclear Installations and Facilities:

- 1. It is a multilateral agreement between the nuclear weapon states.
- 2. It is entered into force in 1971.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: Both India and Pakistan have exchanged their list of nuclear installations under the bilateral agreement.

- The list was handed over in accordance with Article-II of the Agreement on Prohibition of Attacks against Nuclear Installations and Facilities between Pakistan and India, signed on December 31, 1988, the Foreign Office (FO).
- The agreement was entered into force on January 27, 1991, provides, inter alia, that the two countries inform each other of nuclear installations and facilities to be covered under the agreement on the first of January of every calendar year.

Source: ForumIAS

Q.8) Consider the following statements regarding the "International Court of Justice (ICJ)":

- 1. The ICJ was established in 1945 by the same constitutive instrument as the Security Council, the UN Charter, to act as the principal judicial organ of the UN.
- 2. Judgments given in contentious cases between states are binding on the parties.

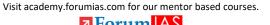
Which of the statements above given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The UN Charter envisioned a symbiotic relationship between the Security Council and the International Court of Justice (ICJ), the principal judicial organ of the UN.

- However, the Council has scarcely made use of the ICJ as an instrument, or "tool", in the exercise of its responsibility for the maintenance of international peace and security.
- In its latest research report on the rule of law of 20 December 2016, Security Council Report examines the relationship between the Security Council and the ICJ, including options for enhancing that relationship to assist the Council in its work.
- The ICJ was established in 1945 by the same constitutive instrument as the Security Council, the UN Charter, to act as the principal judicial organ of the UN.
- The Statute of the Court is annexed to the Charter itself, meaning that all UN member states are automatically parties to the Statute.
- The ICJ is mandated to settle contentious legal disputes submitted by states against other states in accordance with international law.
- Judgments given in contentious cases between states are binding on the parties.
- The Court also gives advisory opinions to the Council, the General Assembly and other authorized bodies on legal questions referred to it by these entities.





Source: ICJ

Q.9) Consider the following statements regarding the objectives of Revitalizing Infrastructure and Systems in Education (RISE) by 2022:

- 1. Qualitatively upgrade the research and academic infrastructure in India to global best standards by 2022.
- 2. To create separate Institutes of National Importance for girls.
- 3. To cater to the requirements of the Kendriya Vidyalayas and Navodaya Vidyalayas, and medical institutions like AIIMSs in a faster time frame.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: B

Explanation: The RISE by 2022 is an attempt to translate the objectives into action plan by making available resources from the market. The objectives of RISE by 2022 are:

- Qualitatively upgrade the research and academic infrastructure in India to global best standards by 2022.
- Make India into an education hub by making available high quality research infrastructure in Indian higher educational institutions.
- To allow access of HEFA funding to institutions like Central Universities, AIIMS, IISERs and newly created Institutes of National Importance, without creating any additional burden to the students.
- To bring greater accountability and speed in execution of infrastructure projects and avoid all cost/time over-runs, moving from the block-grant mode to project-mode for all infrastructure projects.
- To cater to the requirements of the Kendriya Vidyalayas and Navodaya Vidyalayas, and medical institutions like AIIMSs in a faster time frame.

Source: ForumIAS

Q.10) Recently, Khadi and Village Industries Commission (KVIC) revived the 1000 year old Monpa Handmade Paper of which of the following state?

- a) Gujarat
- b) Tripura
- c) Arunachal Pradesh
- d) Odisha

ANS: C

Explanation: Due to the committed efforts of Khadi and Village Industries Commission (KVIC), the 1000-year old heritage art – the Monpa Handmade Paper of Arunachal Pradesh – which was driven to the extinction, has come to life once again.

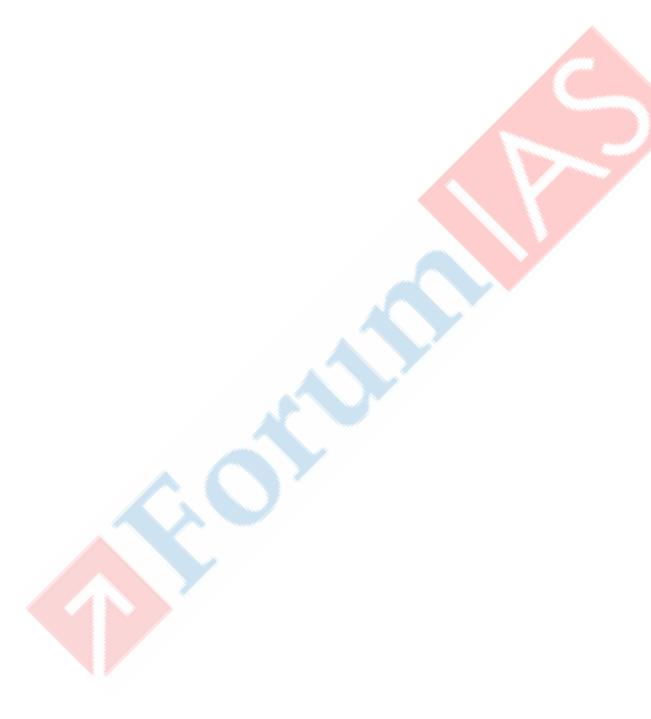
- The art of making Monpa handmade paper originated over 1000 years ago.
- Gradually the art became an integral part of local custom and culture in Tawang in Arunachal Pradesh.
- Once produced in every household in Tawang, this handmade paper was a major source of livelihood for the locals. However, the handmade paper industry almost disappeared in the last 100 years; prompting KVIC to plan revival of this ancient art.

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Source: ForumIAS



Science and Technology

Q.1) Consider the following statements about 'We Think Digital' Programme:

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- 1. It is launched by Ministry of Social Justice and Empowerment.
- 2. It aims to help women in distress on issues related to online safety like cyberbullying, cyberstalking, financial fraud, etc.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About 'We Think Digital' Programme:

- National Commission for Women (NCW) has launched an online resource center under the 'We Think Digital' programme.
- The programme is run collaboratively by the NCW, Facebook, and Cyber Peace Foundation.
- It aims to help women in distress on issues related to online safety like cyberbullying, cyberstalking, financial fraud, etc.
- The center will provide information on cyber security in the form of posters, awareness videos, quizzes, and self-learning modules.
- It will help women in the safe usage of technology and will also help them to be safe from online threats.

Source: EPIC December 2021

Q.2) Consider the following statements about Log4Shell:

- 1. The Log4Shell vulnerability is a flaw in one of the most widely used server software.
- 2. It is remote code execution (RCE) vulnerability.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

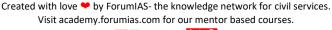
Explanation: About Log4Shell:

- The Log4Shell vulnerability is a flaw in one of the most widely used server software.
- It is remote code execution (RCE) vulnerability, which means attackers can use it to remotely execute arbitrary code on a server and steal data.
- It is vulnerability in a logging library that is used by almost every big company in the world, including Apple Inc., Microsoft Corp., Amazon.com Inc., Google LLC, and more.
- Logging libraries allow developers to monitor their applications and catch bugs. The vulnerability has been given a 10/10, the highest severity rating for such vulnerabilities and is being touted as one of the worst cybersecurity flaws to have been discovered.

Source: EPIC December 2021

Q.3) Global Cybersecurity Index (GCI) is released by which of the following organisation?

a) World Bank





- b) NASA
- c) International Telecommunication Union
- d) Both (a) and (b)

ANS: C

Explanation: About Global Cybersecurity Index (GCI):

- It is released by the ITU.
- It measures the commitment of countries to cybersecurity at a global level.
- India has secured the 10th rank in this index.

Source: EPIC December 2021

Q.4) Which of the following statements about Ramanujan Prize for Young Mathematicians is incorrect?

- a) Professor Neena Gupta, a mathematician at the Indian Statistical Institute in Kolkata has been awarded for year 2021.
- b) The prize is given to an eminent Mathematician younger than 30 years having conducted outstanding research in developing countries.
- c) The Prize has been awarded annually since 2005.
- d) The Prize is administered by the Abdus Salam International Centre for Theoretical Physics (ICTP) jointly with the Department of Science and Technology (DST), GOI and the International Mathematical Union (IMU).

ANS: B

Explanation: About Ramanujan Prize for Young Mathematicians:

- Professor Neena Gupta, a mathematician at the Indian Statistical Institute in Kolkata has been awarded the 2021 DST-ICTP-IMU Ramanujan Prize for Young Mathematicians from developing countries for solving the Zariski cancellation problem.
- The Prize has been awarded annually since 2005.
- The prize is given to an eminent Mathematician younger than 45 years having conducted outstanding research in developing countries.
- The Prize is administered by the Abdus Salam International Centre for Theoretical Physics (ICTP) jointly with the Department of Science and Technology (DST) Government of India and the International Mathematical Union (IMU).

Source: EPIC December 2021

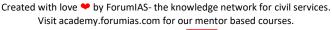
Q.5) The term 'Alfvén critical surface' is related to which of the following?

- a) Moon
- b) Mars
- c) Sun
- d) Mercury

ANS: C

Explanation: About Alfvén critical surface:

- Unlike Earth, the Sun doesn't have a solid surface. But it does have a superheated atmosphere, made of solar material bound to the Sun by gravity and magnetic forces.
- However, as rising heat and pressure push that material away from the Sun, it reaches
 a point where gravity and magnetic fields are too weak to contain it. This point is
 known as the Alfvén critical surface.





• This point marks the end of the solar atmosphere and beginning of the solar wind.

About Parker Solar Probe:

- NASA's Parker Solar Probe has flown through the Sun's upper atmosphere the corona and sampled particles and magnetic fields there. Parker Solar Probe was launched in 2018.
- Its purpose was to explore the Sun.
- It is believed that the probe has crossed the Alfvén critical surface and finally entered the solar atmosphere.

Source: EPIC December 2021

Q.6) The term, 'ASIGMA', recently seen in news defined as?

- a) platform to meet real-time data transfer and messaging requirements
- b) surface-to-surface conventional quasi-ballistic missile
- c) system used for precise delivery of payloads up to 500 kgs at a predetermined location
- d) probe mission to sun

ANS: A

Explanation: About ASIGMA:

- The Indian Army has launched a contemporary messaging application named ASIGMA (Army Secure IndiGenous Messaging Application).
- It is web-based communication platform developed by Corps of Signals of the Army to meet real-time data transfer and messaging requirements of the Army.
- ASIGMA will replace the Army Wide Area Network (AWAN) messaging application.
- The app has a variety of features including multi-level security, message prioritisation and tracking and a dynamic global address.

Source: EPIC December 2021

Q.7) Consider the following statements about Stand-off Anti-Tank (SANT) Missile:

- 1. It is an indigenously designed and developed air-to-surface missile.
- 2. The missile is equipped with millimetre wave (MMW) seeker, which provides high precision strike capability from a safe distance of 10km.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

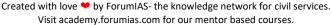
ANS: C

Explanation: About Stand-off Anti-Tank (SANT) Missile:

- DRDO and the Indian Air Force (IAF) flight have successfully tested helicopter-launched Stand-off Anti-Tank (SANT) missile.
- It is an indigenously designed and developed air-to-surface missile.
- The missile is equipped with millimetre wave (MMW) seeker, which provides high precision strike capability from a safe distance of 10km.

Source: EPIC December 2021

Q.8) PANEX-21 is a military exercise organised by Indian army for which of the following?





- a) SAARC nations
- b) West Asia nations
- c) Island nations of IOR
- d) BIMSTEC nations

ANS: D

Explanation: About PANEX-21:

- The Indian Army is organizing an exercise named PANEX-21 for the member nations of Bay of Bengal Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) countries (Bangladesh, Bhutan, Nepal, Sri Lanka, Myanmar, Thailand and India).
- It is a multi-nation Humanitarian Assistance and Disaster Relief (HADR) exercise. Its aim is to foster joint planning and build regional cooperation for responding to natural disasters.

Source: EPIC December 2021

Q.9) Consider the following statements about Neurocysticercosis:

- 1. It is a zoonotic disease.
- 2. It is a neurologic infection caused when a human consumes meat from or comes in contact with a pig infected with tapeworm.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Neurocysticercosis (NCC):

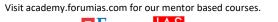
- It is a zoonotic disease.
- It is a neurologic infection caused when a human consumes meat from or comes in contact with a pig infected with tapeworm.
- The eggs of the tapeworm invade the muscles of the human body to make cysts. Sometimes these cysts get into people's brains, triggering epileptic seizures, headaches, difficulty with balance and excess fluid around the brain.
- Those with NCC cannot spread the disease to other people.

Source: EPIC December 2021

Q.10) 'Earth's Black Box' which will soon record rising temperature trends, will be located in which of the following region?

- a) Sub-Saharan region
- b) Argentina
- c) Tasmania
- d) Siberian region

ANS: C





Explanation: About Earth's Black Box:

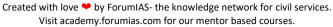
- A steel structure known as 'Earth's Black Box' will soon record rising temperature trends as well as other information related to climate change.
- It will be constructed in Tasmania, Australia and completed in early 2022.
- This location was chosen for its geopolitical and geological stability.
- The box will be filled with a mass of storage drives having internet connectivity, all powered by solar panels.
- It will collect daily metrics including average oceanic and land temperatures, atmospheric carbon dioxide concentration and biodiversity loss.



Location/IR/Geography

Q.1) Consider the following statements about Global Gateway Plan:

- 1. The plan aims to invest €300 billion (\$340 billion) globally in infrastructure, digital and climate projects by 2050.
- 2. The Plan will be implemented in a Team Europe approach that brings together funding by the EU, its Member States and European financial institutions.





Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Global Gateway Plan:

- The plan aims to invest €300 billion (\$340 billion) globally in infrastructure, digital and climate projects by 2027. This will help strengthen health, education and research systems across the world.
- The investment will be made in projects that can be delivered with high standards, good governance, and transparency while ensuring financial sustainability at the same time
- Implementation of Gateway Plan: The Plan will be implemented in a Team Europe approach that brings together funding by the EU, its Member States and European financial institutions. The plan will also require buy-ins from international institutions and the private sector as well.
- The Plan is considered as an offshoot of the Build Back Better World (B3W) Initiative.
- The plan is being seen as a European effort to challenge China's Belt and Road Initiative which was launched in 2013 and funds infrastructure projects in the developing world.

Source: EPIC December 2021

Q.2) Minsk Agreements, recently seen in news is related to which of the following?

- a) Nagorno-Karabakh Region
- b) Gaza Strip
- c) Donbas region
- d) None

ANS: C

Explanation: About the Minsk Agreements:

- Minsk agreements were signed to stop the ongoing conflict between pro-Russian separatists and the Ukraine administration in the Donbas region of Ukraine. 2 Minsk Agreements signed.
- **Minsk I:** It was signed by Ukraine and the Russian-backed separatists. Its provisions included prisoner exchanges, deliveries of humanitarian aid and the withdrawal of heavy weapons. However, the agreement broke down with violations by both sides.
- **Minsk II:** It was signed by Russia, Ukraine, the Organization for Security and Cooperation in Europe (OSCE) and the leaders of pro-Russian separatist regions. The agreement set out a series of military and political steps that remain unimplemented.

Source: EPIC December 2021

Q.3) Recently Union Cabinet has approved the Treaty on Mutual Legal Assistance in Criminal Matters between the Government of the Republic of India and which of the following countries?

- a) Ukraine
- b) Poland



- c) Romania
- d) Belarus

ANS: B

Explanation: About Mutual Legal Assistance:

- Mutual Legal Assistance is a mechanism whereby countries cooperate with one another in order to provide and obtain formal assistance in prevention, suppression, investigation and prosecution of crime.
- This ensures that the criminals do not escape or sabotage the due process of law for want of evidence available in different countries.
- The Mutual Legal Assistance Treaties (MLATs) in criminal matters are the bilateral treaties entered between the countries for providing international cooperation and assistance.
- The Treaty aims to enhance effectiveness of both the countries in investigation and prosecution of crime, through cooperation and mutual legal assistance in criminal matters.
- Recently, the Union Cabinet has approved the Treaty on Mutual Legal Assistance in Criminal Matters between the Government of the Republic of India and the Republic of Poland.

Source: EPIC December 2021

Q.4) Consider the following statements about Killer Robots:

- 1. Killer Robots are semi autonomous weapons.
- 2. These weapons fall under Lethal Autonomous Weapons Systems (LAWS).

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Killer Robots:

- Killer Robots are fully autonomous weapons that would be able to select and engage targets without meaningful human control.
- These weapons fall under Lethal Autonomous Weapons Systems (LAWS) which can include weapons that can use AI and other digital technologies to make decisions on the battlefield. It doesn't include drones, which are manned remotely by pilots.

Need for a Law on LAWS

- Allowing robots to make life-or-death decisions is inhumane and should be banned;
- Killer robots raise the concern of algorithmic bias. Data sets are typically flawed and tend to disfavour traditionally disadvantaged groups;
- Killer robots also present challenges for compliance with international humanitarian law's Proportionality Principle, which prohibits attacks in which expected civilian harm is excessive in comparison to anticipated military advantage;
- It could also reduce the threshold for war.

Source: EPIC December 2021

Q.5) Which of the following is world's newest republic?



- a) Barbados
- b) Nauru
- c) Spain
- d) Palau

ANS: A

Explanation: Barbados as the Newest Republic:

- Barbados has become a republic and has removed Queen Elizabeth II as the head of the State. Barbados first became an English colony in 1625.
- Barbados gained independence on November 30, 1966 with Elizabeth II as Queen of Barbados. It will continue to be one of the 54 Commonwealth nations.
- The terms "royal" and "crown" would now be dropped from all official references.

Source: EPIC December 2021

Q.6) Recently a new butterfly species named 'Chocolate-bordered Flitter' has been found in which of the following state/UTs?

- a) Andaman and Nicobar
- b) Uttarakhand
- c) Sikkim
- d) Kerala

ANS: C

Explanation: About 'Chocolate-bordered Flitter' Butterfly:

- A team of researchers have is covered a new butterfly species in Dzongu, North Sikkim and have named it 'Chocolate-bordered Flitter' (Zographetus Dzonguensis).
- It is a golden yellow butterfly. It has been named so as it has a chocolate coloured border around both wings.
- The closest relatives of this butterfly are found in Guangdong and Hainan, in southeastern China.

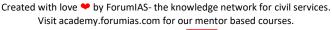
Source: EPIC December 2021

Q.7) Equator does not pass through which of the following African countries?

- a) Gabon
- b) Tanzania
- c) Kenya
- d) Uganda

ANS: B

Explanation: The Equator passes through 13 countries: Ecuador, Colombia, Brazil, Sao Tome & Principe, Gabon, Republic of the Congo, Democratic Republic of the Congo, Uganda, Kenya, Somalia, Maldives, Indonesia and Kiribati. At least half of these countries rank among the poorest in the world.





Source: Oxford Atlas

Q.8) Consider the following statements regarding Earthquake Waves:

- 1. The particles subjected to P-waves travel in the direction of the propagation of waves whereas particles subjected to S-waves move perpendicular to the direction of the propagation of waves.
- 2. The Love waves produce entirely horizontal motion and its amplitude diminishes with greater depth.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Earthquake Waves

P Waves

- The first kind of body wave is the P wave or primary wave.
- It is the fastest kind of seismic wave, and the first to arrive at a seismic station.
- P waves can move through solid rock and fluids, like water or the liquid layers of the Earth.
- It squishes and stretches the rock it moves through just like sound waves compress and expand the air as they move through it.
- P waves are also known as compressional waves, because they push and pull.
- Particles subjected to a P wave move in the same direction that the wave is moves in; it is the direction that the energy is traveling in, sometimes called the "direction of wave propagation."

S Waves

- The second type of body wave is the S wave or secondary wave, and is easy to remember because they're the second wave to arrive after an earthquake.
- An S wave is about 1.7 times slower than a P wave.
- The biggest difference is that S waves cannot move through liquids because S waves only move through solids, seismologists were led to conclude that the Earth's outer core is a liquid.
- S waves move rock particles up and down, or side-to-side, and are always perpendicular to the direction that the wave is traveling in (the direction of wave propagation).

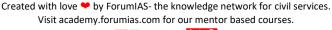
Love Waves

- One kind of surface wave is called a Love wave, named after British mathematician A. E. H. Love, who worked out the mathematical model for this wave type in 1911.
- Love waves produce entirely horizontal motion. The amplitude is largest at the surface and diminishes with greater depth.

Source: NCERT

Q.9) Which of the following statements is/are correct regarding Exfoliation?

- 1. It is a chemical weathering of rocks in which pressure in a rock is released along parallel alignments near the surface of the bedrock.
- 2. It primarily occurs on intrusive igneous or metamorphosed rocks that are exposed at the Earth's surface.





Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Exfoliation:

- Exfoliation is a mechanical weathering process in which pressure in a rock is released (unloading) along parallel alignments (sheet joints) near the surface of the bedrock and layers or slabs of the rock along these alignments break off from the bedrock and move downhill by gravity.
- Exfoliation primarily occurs on intrusive igneous or metamorphosed rocks that are exposed at the Earth's surface.
- Exfoliation can occur both very slowly or very rapidly as a form of mass wasting.
- Large rocks characterized by exfoliation are commonly referred to as exfoliation domes.
- Table Rock Mountain in South Carolina and Enchanted Rock in Texas are both examples of exfoliation domes with large slabs of rock exfoliating from the bedrock.

Source: NCERT

Q.10) Consider the following statements about surface water resources:

- 1. Water flow in a river depends on size of its catchment area or river basin and rainfall within its catchment area.
- 2. Small creeks, Lagoons and water holes are examples of perennial surface water.

Which of the statement/s given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

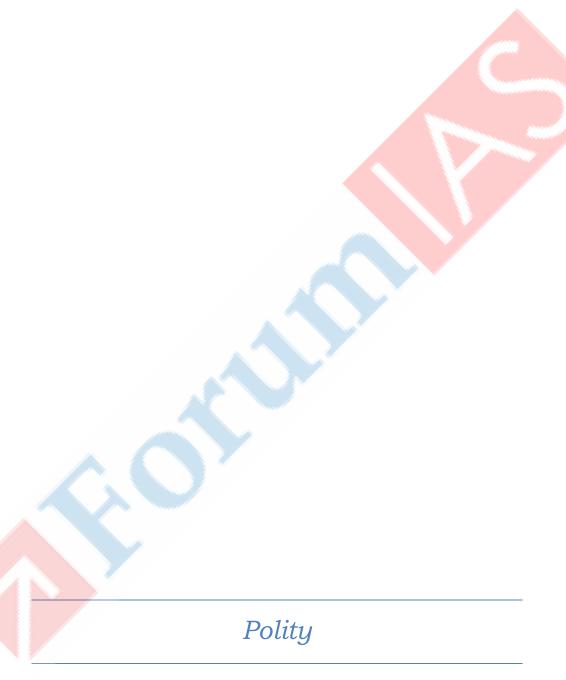
ANS: A

Explanation: About Surface water sources:

- There are four major sources of surface water. These are rivers, lakes, ponds, and tanks.
- The mean annual flow in all the river basins in India is estimated to be 1,869 cubic
- However, due to topographical, hydrological and other constraints, only about 690 cubic km (32 per cent) of the available surface water can be utilised.
- Water flow in a river depends on size of its catchment area or river basin and rainfall within its catchment area.
- There are three types of surface water: perennial, ephemeral, and man-made.
- Perennial, or permanent, surface water persists throughout the year and is replenished with groundwater when there is little precipitation.
- Ephemeral, or semi-permanent, surface water exists for only part of the year. Ephemeral surface water includes small creeks, lagoons, and water holes.
- Man-made surface water is found in artificial structures, such as dams and constructed wetlands.

Source: NCERT





Q.1) Consider the following statements about Statutory Bail:

- 1. Statutory Bail is an indefeasible right.
- 2. The stipulated period within which the charge sheet has to be filed begins from the day the accused is remanded for the first time.

Which of the statements given above is/are correct?

a) 1 only



- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Principles of Statutory Bail:

- Default or statutory bail is an indefeasible right', regardless of the nature of the crime;
- The stipulated period within which the charge sheet has to be filed begins from the day the accused is remanded for the first time.
- It includes days undergone in both police and judicial custody, but not days spent in house arrest;
- The right should be claimed by the person in custody.
- If the charge sheet is not filed within the stipulated period, but there is no application for bail under Section 167(2), then there is no automatic bail.

Source: EPIC December 2021

Q.2) Consider the following statements about Delimitation:

- 1. It refers to the process of demarcation of the boundaries of parliamentary or assembly constituencies.
- 2. The process is carried out every five years to ensure that each constituency has approximately an equal number of voters.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About delimitation:

- Delimitation refers to the process of demarcation of the boundaries of parliamentary or assembly constituencies.
- The process is carried out every few years to ensure that each constituency has approximately an equal number of voters the underlying logic being that a set number of voters have one representative in the Lok Sabha as well as in the state assemblies across the country.
- Therefore, the exercise is carried out after every census. Given the political sensitivity of the exercise, no government central or state can carry it out, and after every census, Parliament enacts a Delimitation Act under Article 82 of the Constitution. Subsequently, a high-powered body known as the Delimitation Commission is constituted, which carries out the process of demarcation of constituency boundaries.
- The orders of this commission are legally binding and not subject to scrutiny of any court of law. Even Parliament cannot suggest modifications to an order issued by the commission.

Source: EPIC December 2021

Q.3) Consider the following statements about Republic of Barbados:

- 1. Barbados has removed Queen Elizabeth II as the head of the State in 2021.
- 2. It has not joined Commonwealth nations.

Which of the statements given above is/are not correct?



- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Barbados as the Newest Republic:

- Barbados has become a republic and has removed Queen Elizabeth II as the head of the State.
- Barbados first became an English colony in 1625.
- Barbados gained independence on November 30, 1966 with Elizabeth II as Queen of Barbados. It will continue to be one of the 54 Commonwealth nations.
- The terms "royal" and "crown" would now be dropped from all official references.

Source: EPIC December 2021

Q.4) Which of the following is/are features of Charter Act of 1813?

- 1. It abolished the trade monopoly of the company in India.
- 2. Act did not assert the sovereignty of the British Crown over the Company's territories in India.
- 3. It allowed the Christian missionaries to come to India for the purpose of enlightening the

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: C

Explanation: The features of Charter Act of 1813 were as follows:

- It abolished the trade monopoly of the company in India i.e., the Indian trade was thrown open to all British merchants.
- However, it continued the monopoly of the company over trade in tea and trade with China.
- It asserted the sovereignty of the British Crown over the Company's territories in India.
- It allowed the Christian missionaries to come to India for the purpose of enlightening the people.

Source: Laxmikanth.

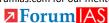
Q.5) The Indian Constitution has been described as 'quasi-federal' by whom among the following?

- a) K.C. Wheare
- b) Morris Jones
- c) Ivor Jennings
- d) James Mill

ANS: A

Explanation: Indian Constitution has been variously described as 'federal in form but, unitary in spirit', 'quasi-federal' by K.C. Wheare, 'bargaining federalism' by Morris Jones, 'co-





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operative federalism' by Granville Austin, 'federation with a centralizing tendency' by Ivor Jennings and so on.

Source: Laxmikanth.

Q.6) Consider the following statements:

- 1. Article 1 of Indian Constitution describes India as a Union of States rather than a Federation of States.
- 2. There was no unanimity in the Constituent Assembly with regard to the name of the

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Article 1 describes India, that is, Bharat as a 'Union of States' rather than a 'Federation of States'.

- This provision deals with two things: one, name of the country, and two, type of polity.
- There was no unanimity in the Constituent Assembly with regard to the name of the country. Some members suggested the traditional name (Bharat) while other advocated the modern name (India).
- Hence, the Constituent Assembly had to adopt a mix of both (India, that is, Bharat')
- Secondly, the country is described as 'Union' although its Constitution is federal in structure.
- According to Dr B R Ambedkar, the phrase 'Union of States' has been preferred to 'Federation of States' for two reasons: one, the Indian Federation is not the result of an agreement among the states like the American Federation; and two, the states have no right to secede from the federation.
- The federation is a Union because it is indestructible. The country is an integral whole and divided into different states only for the convenience of administration.

Source: Laxmikanth.

Q.7) Which of the following is NOT part of Right to equality?

- a) Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth.
- b) Right to practice any profession or to carry on any occupation, trade or business.
- c) Abolition of titles except military and academic.
- d) Equality of opportunity in matters of public employment.

ANS: B

Explanation: Right to equality (Articles 14–18):

- Equality before law and equal protection of laws (Article 14).
- Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth (Article 15).





- Equality of opportunity in matters of public employment (Article 16).
- Abolition of un-touchability and prohibition of its practice (Article 17).
- Abolition of titles except military and academic (Article 18).

NOTE: Right to practice any profession or to carry on any occupation, trade or business is covers under Right to Freedom.

Source: Laxmikanth.

Q.8) Which of the following is/are functional items of "Eleventh Schedule"?

- 1. Animal husbandry, dairying and poultry.
- 2. Food processing industries.
- 3. Drinking water

Select the correct answer using the codes given below:

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: D

Explanation: Eleventh Schedule: It contains the following 29 functional items placed within the purview of panchayats:

- Agriculture, including agricultural extension
- Land improvement, implementation of land reforms, land consolidation and soil conservation.
- Minor irrigation, water management and watershed development
- Animal husbandry, dairying and poultry
- **Fisheries**
- Social forestry and farm forestry
- Minor forest produce
- Small-scale industries, including food processing industries
- Khadi, village and cottage industries
- Rural housing
- Drinking water
- Fuel and fodder
- Roads, culverts, bridges, ferries, waterways and other means of communication
- Rural electrification, including distribution of electricity.

Source: Laxmikanth

Q.9) The Special Police Establishment is often seen in news is associated with which of the following?

- a) Central Bureau of Investigation
- b) National Crime Records Bureau
- c) National Investigation Agency
- d) Central Vigilance Commission

ANS: A

Explanation: The Central Bureau of Investigation (CBI) was set up in 1963 by a resolution of the Ministry of Home Affairs.





- Later, it was transferred to the Ministry of Personnel and now it enjoys the status of an attached office.
- The Special Police Establishment (which looked into vigilance cases) setup in 1941 was also merged with the CBI.

Source: ForumIAS

Q.10) The right to information movement in India began with which of the following movement?

- a) Mazdoor Kisan Shakti Sangathan (MKSS) movement
- b) Appiko movement
- c) Chipko movement
- d) Narmada Bachao Andholan (NBA)

ANS: A Explanation:

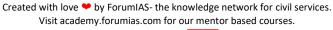
- The right to information movement in India began with the Mazdoor Kisan Shakti Sangathan (MKSS) movement to bring in transparency in village accounts through the demand for minimum wages in rural India.
- False entries in wage rolls were a sign of increasing corruption in the system, which encouraged MKSS to demand official information recorded in government files.

Source: ForumIAS



Q.1) Consider the following statements about Fintech:

- 1. It refers to any business that uses technology to enhance or automate financial services and processes.
- 2. Fintech technologies cover a range of services including digital delivery of banking, investment, insurance, trading and risk management services.





Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Fintech:

- Fintech is derived from Financial Services and Technology.
- Fintech refers to any business that uses technology to enhance or automate financial services and processes.
- Fintech uses technology to make the financial services more accessible to the general public.
- Fintech technologies cover a range of services including digital delivery of banking, investment, insurance, trading and risk management services.

Source: EPIC December 2021

Q.2) Consider the following statements about e-RUPI:

- 1. It is a cashless and contactless instrument for digital payment based on Unified Payment Interface (UPI) platform.
- 2. It has been developed by the National Informatics Centre.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About e-RUPI:

- It is a cashless and contactless instrument for digital payment based on Unified Payment Interface (UPI) platform.
- It has also been developed by the National Payments Corporation of India (NPCI).
- No internet is required to undertake transactions through e-RUPI.
- The Government has universalised bank accounts with 430 million Jan Dhan accounts in the last seven years from less than 50% of Indians having bank accounts in 2014.
- PM Svanidhi enabled access to credit for small vendors across the country.

Source: EPIC December 2021

Q.3) Consider the following statements about the Periodic Labour Force Survey (PLFS):

- 1. Its objective is to estimate the key employment and unemployment indicators.
- 2. It is released by Ministry of labour.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2



ANS: B

Explanation: About the Periodic Labour Force Survey (PLFS):

- The Periodic Labour Force Survey (PLFS) was launched in April 2017 by the National Statistical Office (NSO).
- The objectives of PLFS are twofold.
 - > One is to estimate the key employment and unemployment indicators (viz. Worker Population Ratio (WPR), Labour Force Participation Rate (LFPR), Unemployment Rate (UER)) in the short time interval of three months for the urban areas only in the 'Current Weekly Status' (CWS);
 - > The other purpose is to estimate employment and unemployment indicators in both 'Usual Status' and CWS in both rural and urban areas annually.

Source: EPIC December 2021

Q.4) "The section of the working population in the age group of 16-64 in the economy, currently employed or seeking employment". Which of the following is term is defined in the above statement?

- a) Unemployment Rate (UER)
- b) Working Population Ratio (WPR)
- c) Labour force participation rate (LFPR)
- d) Employment rate

ANS: C

Explanation:

- **Labour force participation rate (LFPR)** is defined as the section of the working population in the age group of 16-64 in the economy currently employed or seeking employment.
- The Worker-Population Ratio (WPR) is the proportion of the population that is working.
- **The Unemployment Rate (UER)** is the percentage of people in the labour force who do not get employment.

Source: EPIC December 2021

Q.5) Harsh Kumar Bhanwala Committee is related to which of the following?

- a) Banks Board Bureau
- b) Social Stock Exchange
- c) InFinity Forum
- d) Bharat Bill Pay System

ANS: B

Explanation: About Social Stock Exchange (SSE):

- There is lack of information in the public domain about for-profit social enterprises or non-profit organisations (social enterprises).
- Investors interested in contributing to social enterprises are dissuaded by lack of knowledge about these enterprises.
- The Social Stock Exchange will operate like any other stock exchange.
- Relevant securities of social enterprises (SEs) will be listed on a dedicated exchange and can be traded by public.
- It would provide a new investment avenue for socially conscious investors.



- The listed SEs will have to make appropriate financial and social impact disclosures so that investors are aware of their activities.
- SEBI has announced the setting up of Social Stock Exchange, on the basis of proposals from the working group under Ishaat Hussain, and a technical advisory committee under Harsh Kumar Bhanwala.

Source: EPIC December 2021

Q.6) Consider the following statements about New Warehousing Policy:

- 1. The Policy aims to reduce logistic cost and ease transportation by developing exclusive warehousing zones in public-private partnership (PPP) model.
- 2. The policy will be framed and implemented by the National Highways Authority of India (NHAI).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Warehousing:

- Warehousing can be defined as the systematic process of storing and preserving goods on a large scale in a warehouse and making them available when they are demanded, i.e. for sale, distribution and consumption.
- The e-commerce sector has been driving the demand for logistics and warehousing across global markets.
- It has emerged as the most prominent driver of Indian warehousing market volumes, along with the third party logistics sector.

About the Policy:

- The Policy aims to reduce logistic cost and ease transportation by developing exclusive warehousing zones in public-private partnership (PPP) model.
- The policy will be framed and implemented by the National Highways Authority of India (NHAI).
- The warehouses will be located outside city centres, especially around the land available with NHAI along highways and expressways.
- These warehouses will house coldstorage chains and will be able to store all kinds of cargo—wet and dry.
- As warehouses are expected to come up outside city centres, large trucks carrying the cargo will not need to enter the city to unload their goods.
- This will also help boost bulk carrying capacity and save fuel. These large vehicles can also transport more goods compared to the smaller trucks.

Source: EPIC December 2021

Q.7) A report on India's Coal Sector has been released by which of the following?

- a) NITI Aayog
- b) Ministry of Power
- c) Ministry of Coal
- d) Both (a) and (c)



ANS: A

Explanation: NITI Aayog has released a report on India's Coal Sector.

Key findings of the NITI Aayog's report:

- Coal will remain India's mainstay energy source, and the country will shape global demand this decade.
- The demand for coal will be led by usage from the electricity sector.
- Coal-based thermal power generation will grow in absolute terms for the next decade.
- However, its share in the total power generation mix of the country will decline to a 50-55% (from current 72%) in the next 10 years. This would be due to increasing share of renewable energy.

Key findings of the IEA's coal report:

- The iron and steel sector will continue to use coal, as there are not many technologies
 to replace it immediately.
- India's push to domestic coal mining through both Coal India and auction of coal blocks to private companies will increase as it plateaus in other parts of the world, including China.
- India is set to overtake China as the world's largest metallurgical coal importer.
- Metallurgical coal or coking coal is a grade of coal that can be used to produce goodquality coke.
- Coke is an essential fuel and reactant in the blast furnace process for primary steelmaking.

Source: EPIC December 2021

Q.8) Consider the following statements about Plant Varieties and Farmers' Rights (PPV&FR) Authority:

- 1. It grants Intellectual Property Rights to plant breeders, researchers and farmers who have developed plant varieties.
- 2. Plant Varieties and Farmers' Rights (PPV&FR) Authority is a statutory body.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Plant Varieties and Farmers' Rights (PPV&FR) Authority:

- Protection of Plant Varieties and Farmers' Rights (PPV&FR) Authority has been established under PPV&FR (Protection of Plant Varieties and Farmers' Rights) Act, 2001 to grant Intellectual Property Rights to plant breeders, researchers and farmers who have developed plant varieties (new and existing).
- Protection of Plant Varieties and Farmers' Rights Act was enacted in 2001 to comply with the World Trade Organization's requirements on laws to protect IPRs (Intellectual property rights) in agriculture.
- To remove the apprehensions of the farming community in India regarding the Act, the authority included a chapter making the rights of farmers' paramount over those of breeders.

Source: EPIC December 2021

Q.9) Consider the following statements about the Land Port Authority of India:



- 1. The Land Port Authority of India is a statutory body.
- 2. It functions under Ministry of Shipping.
- 3. The Land Port Authority of India is responsible for managing border infrastructure.

Which of the above given statement is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: C

Explanation: About the Land Port Authority of India:

- The Land Port Authority of India is a statutory body.
- It was established under Land Ports Authority of India Act, 2010.
- Under the act, it has powers to undertake joint ventures to discharge its functions.
- It functions under Ministry of Home Affairs.
- The Land Port Authority of India is responsible for managing border infrastructure.
- It creates upgrades and maintains the integrated check posts and also border infrastructure.
- The Authority works to provide secure and efficient systems of cargo and passenger movements across international borders.
- It also works to reduce the dwell time and trade transaction time and costs.
- It promotes people-to-people contact.
- The Inland Custom Ports and Kartarpur Sahib Corridor were also constructed by Land Port Authority of India.

Source: ForumIAS

Q.10) Consider the following statements about Urja Dakshata Information Tool (UDIT):

- 1. It is an initiative taken by BEE with World Resources Institute (WRI).
- 2. It is an online platform that explains the energy efficiency platform in India.

Which of the above given statement is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Urja Dakshata Information Tool (UDIT):

- Urja Dakshata Information Tool (UDIT) (www.udit.beeindia.gov.in), a first ever initiative taken by BEE with World Resources Institute (WRI), to facilitate a database on energy efficiency was launched.
- UDIT is a user-friendly platform that explains the energy efficiency landscape of India across industry, appliances, building, transport, municipal and agriculture sectors.
- UDIT will also showcase the capacity building and new initiatives taken up by the Government across the sectors in the increase energy efficiency domain.

Source: ForumIAS



Q.1) Which of the following has released a Resource Book on Springshed Management in the Indian Himalayan Region (IHR)?

- a) Ministry of Environment, Forest and Climate Change
- b) UNEP
- c) National Disaster Management Authority
- d) NITI Aayog

ANS: D



Explanation: NITI Aayog has released a Resource Book on Springshed Management in the Indian Himalayan Region (IHR). This Resource Book is a summarised guiding document on best practices in Springshed management in the IHR.

About Springs:

- Springs are groundwater discharge points in the mountains where the water-bearing layers (aquifer) intersect with the ground surface and water seeps out of rock pores, fissures, fractures, or depressions.
- **Importance of Springs:** Springs are the primary water source for millions of people in the mid-hills of the Hindu Kush Himalayas (HKH) and supply over 90% of water needs for domestic uses.

Recommendations by the Report

- Formation of National Springs Mission (NSM): A National Mission will facilitate
 improved coordination, efficient execution and scaling up of springshed management
 initiatives in India
- Create a national digital database on spring-related data collected by various agencies. This will improve ease of access and academic research.
- Create support for existing, state and national-level science-policy-practice consortiums. This will facilitate experience sharing, complementary knowledge generation, transfer, and capacity building of all stakeholders.

Source: EPIC December 2021

Q.2) Consider the following statements about Project RE-HAB:

- 1. It is launched by Khadi and Village Industries Commission (KVIC).
- 2. The project is a cost-effective way of reducing human-wild conflicts without causing any harm to the animals.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Project RE-HAB:

- Project RE-HAB is a sub-mission of KVIC's National Honey Mission.
- Under this Project, "Bee-fences" are created by setting up bee boxes in the passageways of elephants to block their entrance to human territories.
- The boxes are connected with a string so that when elephants attempt to pass through, a tug or pull causes the bees to swarm the elephant herds and dissuade them from progressing further.

Project Launch

• Project RE-HAB was earlier launched in Kodagu district of Karnataka in March 2021. In just 6 months, this project has reduced elephant attacks by over 70%.

Significance of the Project

- The project is a cost-effective way of reducing human-wild conflicts without causing any harm to the animals.
- It is scientifically recorded that elephants are annoyed by the honey bees.
- Elephants also fear that the bee swarms can bite their sensitive inner side of the trunk and eyes.
- Hence, this project will force elephants to return and prevent Elephant Human Conflicts.



Source: EPIC December 2021

Q.3) Which of the statements given below is/are correct?

- 1. DALY is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death.
- 2. Fine particulate air pollution from plastic production does not impact disability-adjusted life years (DALY).

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: A study conducted by ETH Zurich (a public research university in Switzerland) has shown that the impact of plastic on climate and health is greater than previously thought due to the increased use of coal.

Key findings of report

- (1) Plastic production accounted for the 96% of the Particulate matter health footprint. Health Footprint is the amount of health resources that are consumed by a particular process or substance;
- (2) Global carbon footprint of plastic has doubled since 1995, accounting for 4.5% of global greenhouse gas emissions;
- (3) Developing countries like China, Indonesia and South Africa, were among the major producers of plastic and thus suffered from 75 percent of particulate matter-related health impacts;
- (4) Study also showed that about half of this emission comes from coal used during the production of plastic;
- (5) Fine particulate air pollution from plastic production caused approximately 2.2 million disability-adjusted life years (DALY). DALY is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death.

Impact of plastic production on health

- Coal burned during plastic production produces particulate matter that accumulates in the air.
- Particulate pollution is a mixture of soot, smoke, and tiny particles formed in the atmosphere from sulfur dioxide (SO2), nitrogen oxides (NOx) and ammonia (NH3).
- It is highly harmful and can cause asthma, bronchitis and cardiovascular disease.

Source: EPIC December 2021

Q.4) Consider the following statements about pollution:

- 1. Problem of indoor pollution is limited to the NCR and winter alone.
- 2. Biomass burning by households for cooking and heating needs in winters is responsible for up to 40% air pollution in the NCR.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2



ANS: B

Explanation: Biomass burning as a major polluter

- Biomass burning by households for cooking and heating needs in winters is responsible for up to 40% air pollution in the NCR.
- Problem of indoor pollution is not limited to the NCR and winter alone.
- Various databases show that indoor pollution has a 27 to 49% share in India's total annual PM2.5 emissions.
- Analysis by think tanks like TERI shows that the household emissions are the largest contributor to PM 2.5.

Impact on health

According to Global Burden of Disease Study 2019, biomass burning kills around 6 Lakh Indians prematurely every year, by far the most for a country. Household air pollution causes 36% of all deaths due to air pollution.

Source: EPIC December 2021

Q.5) Consider the following statements about Global Methane Initiative:

- 1. It is an international public-private initiative launched in 2004.
- 2. India is its one of the newest member in 2020.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Global Methane Initiative:

- It is an international public-private initiative launched in 2004.
- Its aim is to achieve a global reduction in anthropogenic methane emission through a partnership among developed and developing countries.
- It is a voluntary Government and an informal international partnership having members from 45 countries including the United States and Canada.
- India has been one of the members since its inception. India has taken up Vice-Chairmanship for the first time in the Steering Leadership along with the USA.

Source: EPIC December 2021

Q.6) Consider the following statements about Indian Desert Cat:

- 1. It has been spotted for the first time in Gujarat's Kutch.
- 2. It has been classified as Vulnerable under the IUCN Red List.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: About Indian Desert Cat:

- An Indian desert cat has been spotted for the first time in Madhya Pradesh's Panna Tiger Reserve (PTR).
- Indian Desert Cat is also known as the Asian steppe wildcat and Asiatic Wildcat.





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- The cat is considered as a subspecies of African Wildcat.
- It is mostly found in Kazakhstan, Western India (Thar Desert), China and Mongolia.
- The cat has also been found in Nauradehi Wildlife Sanctuary in Madhya Pradesh and Mirzapur forests.
- It has been classified as Least Concern under the IUCN Red List.

Source: EPIC December 2021

Q.7) Recently, researchers have unearthed two well-preserved dinosaur skulls of Issi saaneq Species from which of the following place?

- a) Greenland
- b) Iceland
- c) Nigeria
- d) Gujarat's Kutch

ANS: A

Explanation: About Issi saaneq Species of Dinosaurs:

- Researchers have unearthed two well-preserved dinosaur skulls during an excavation in East Greenland.
- They have named the species as Issi saaneq.
- It lived about 214 million years ago in what is now Greenland.
- It was a medium-sized, long-necked herbivore and a predecessor of the sauropods.
- The name means means "coldbone" in Greenland's Inuit language.
- This is the first evidence of a distinct Greenlandic dinosaur species.

Source: EPIC December 2021

Q.8) Consider the following statements about Physella acuta:

- 1. It is a Highly Invasive Species.
- 2. It is a Fish species.
- 3. It is native to North America, but now found in all continents except Antarctica.

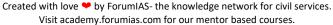
Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: C

Explanation: About Physella acuta:

• It is a snail species.





- Although native to North America, it is now found in all continents except Antarctica.
- It is also known as acute bladder snail.
- It has been found in Edappally canal in Kochi, Kerala.
- This snail species is a Highly Invasive Species.
- It is believed to have reached Kerala through the aquarium trade, a major vector for invasive species.

Source: EPIC December 2021

Q.9) Consider the following statements about Indian flapshell turtle:

- 1. It is brackish water turtle species found in South Asia.
- 2. They are known to be omnivorous.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Indian flapshell turtle (Lissemys punctata):

- It is a freshwater species of turtle found in South Asia.
- They are found in Pakistan, India, Sri Lanka, Nepal, Bangladesh (Indus and Ganges drainages), and Myanmar (Irrawaddy and Salween Rivers).
- They live in rivers, streams, marshes, ponds, lakes and irrigation canals, and tanks.
- They are also well adapted to drought conditions.
- They are known to be omnivorous. Their IUCN Status is Vulnerable.

Source: EPIC December 2021

Q.10) Consider the following statements about Wildlife Crime Control Bureau (WCCB):

- 1. It has been created under the Wild Life (Protection) Amendment Act, 2006.
- 2. It assists the Customs authorities in inspection of the consignments of flora & fauna as per the provisions of the Wild Life Protection Act, CITES and EXIM Policy governing such an item.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Wildlife Crime Control Bureau (WCCB):



- Between 2018 and 2020, about 2,054 cases were registered for killing or illegal trafficking of wild animals in India.
- The cases have been registered by the Wildlife Crime Control Bureau (WCCB).
- It is a statutory body established by the Government of India under MoEFCC to combat organized wildlife crime in the country.
- It assists the Customs authorities in inspection of the consignments of flora & fauna as per the provisions of the Wild Life Protection Act, CITES and EXIM Policy governing such an item.
- It has been created under the Wild Life (Protection) Amendment Act, 2006.

Source: EPIC December 2021

History/Art and Culture

Q.1) Which of the following fort has been described as Gibraltar of the East in British Gazette?

- a) Raigarh Fort
- b) Saraighat Fort
- c) Kangra Fort
- d) Fort William

ANS: A

Explanation: About Raigad Fort:

• Raigad is a hill fort situated in the Raigad district in Maharashtra. The British Gazette states the fort was known to early Europeans as the Gibraltar of the East.

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• Its decisive feature is a mile and a half flat top, which has adequate room for buildings. In its prime, the fort had 300 stone houses and a garrison of 2,000 men.

Importance of Raigad Fort:

- The fort, which was earlier called Rairi, was the seat of the Maratha clan Shirke in the 12th century.
- The fort changed hands a number of times from the dynasty of Bahaminis to the Nizam Shahis and then the Adil Shahis.
- In 1656, Chhatrapati Shivaji captured it. The fort not only helped Shivaji challenge the supremacy of the Adil Shahi dynasty but also opened up the routes towards Konkan for the extension of his power.
- Raigad fort had emerged as the seat of Shivaji's government.
- Shivaji was coronated at Raigad by Gagabhatt where he took on the title of Chhatrapati.

Source: EPIC December 2021

Q.2) Consider the following:

- 1. Chhau Dance
- 2. Durga Puja
- 3. Kumbh Mela
- 4. Bharatnatyam

Which of the above mentioned enjoys status of UNESCO's Intangible Cultural Heritages?

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

ANS: A

Explanation: Recently, the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage has inscribed 'Durga Puja in Kolkata' on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity.

With the inscription of Durga Puja, India now have 14 intangible cultural heritage elements on the prestigious UNESCO Representative List of ICH of Humanity.

The other 13 intangible cultural heritage elements are:







Source: EPIC December 2021

Q.3) Which of the following is/are consequences of 1857 revolt?

- 1. No religious interference from British officials.
- 2. Number of Indian soldiers was decreased.

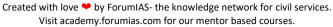
Choose the correct code from below given options:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Consequences of 1857 revolt:

- As per the Queen's proclamation, the era of annexations and expansion had ended and the British promised to respect the dignity and rights of the native princes.
- The Indian states were henceforth to recognise the paramountcy of the British Crown and were to be treated as parts of a single charge.
- The people of India were promised freedom of religion without interference from British officials.
- The proclamation also promised equal and impartial protection under law to all Indians, besides equal opportunities in government services irrespective of race or creed.
- It was also promised that old Indian rights, customs and practices would be given due regarded while framing and administering the law.
- The Army, which was at the forefront of the outbreak, was thoroughly re-organised and British military policy came to be dominated by the idea of "division and counterpoise".





• The British could no longer depend on Indian loyalty, so the number of Indian soldiers was drastically reduced even as the number of European soldiers was increased.

Source: ForumIAS

Q.4) "Angkor Vat"- the world's largest Hindu temple located in which of the following country?

- a) Thailand
- b) Singapore
- c) Myanmar
- d) Cambodia

ANS: D

Explanation: Deep in the jungles of Cambodia, the world's largest Hindu temple – the Angkor Vat is situated. However, it is just one of the many Hindu temples in South East Asia. The sea-faring activities of the Chola Empire, Kaling Empire etc. brought the religion in these parts and gave rise to many Hindu dynasties – the Champa civilisation in Vietnam, the Khmer empire in Indochina and the Majapahit Empire in Java.

Source: ForumIAS

Q.5) Consider the following statements with respect British India freedom movement:

- 1. Ramosi Peasant Force established by Savarkar brothers.
- 2. Mitra mela organized Chapekar brothers.

Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: The first of the revolutionary activities in Maharashtra was the organisation of the Ramosi Peasant Force by Vasudev Balwant Phadke in 1879, which aimed to rid the country of the British by instigating an armed revolt by disrupting communication lines.

It hoped to raise funds for its activities through dacoities. It was suppressed prematurely. During the 1890s, Tilak propagated a spirit of militant nationalism, including use of violence, through Ganapati and Shivaji festivals and his journals Kesari and Maharatta.

Two of his disciples—the Chapekar brothers, Damodar and Balkrishna-murdered the Plague Commissioner of Poona, Rand, and one Lt. Ayerst in 1897. Savarkar and his brother organised Mitra Mela, a secret society, in 1899 which merged with Abhinav Bharat (after Mazzinni's Young Italy') in 1904.

Soon Nasik, Poona and Bombay emerged as centres of bomb manufacture. In 1909, A.M.T. Jackson, the Collector of Nasik, who was also a well-known indologist, was killed by Anant Lakshman Kanhere, a member of Abhinav Bharat.

Source: ForumIAS



Q.6) Consider the following statements with respect to "Navroz festival":

- 1. It is celebrated mostly by Buddhist community.
- 2. In India, the Navroz festival is celebrated twice a year.

Which of the following above statements is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Navroz festival:

- Navroz is a Persian New Year festival celebrated by Parsis, followers of Zoroastrianism and various other communities.
- In India, the Navroz festival is celebrated twice a year.
- The first according to the Iranian calendar and the second according to the Shahen Shahi calendar which is followed by people in India and Pakistan.
- The festival is celebrated for health, wealth, prosperity and productivity.
- The central feature of the festival is to visit the Fire Temple and offer prayers to the deities.

Source: ForumIAS

Q.7) Which of the following Governor General of India established Fort William College to recruit civil servants?

- a) Cornwallis
- b) Wellesley
- c) Ripon
- d) William Bentinck

ANS: B

Explanation: In 1800, Wellesley (governor-general, 1798-1805) set up the Fort William College for training of new recruits. In 1806 Wellesley's college was disapproved by the Court of Directors and instead the East India College was set up at Hailey bury in England to impart two years' training to the recruits.

Source: ForumIAS

Q.8) Which of the following statements is/are correct with respect to Indian Factory Act 1891?

- 1. Reduced maximum working hours for children to 7 hours a day.
- 2. Provided weekly holiday for woman and children only.

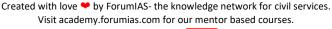
Which of the following codes below given is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About the Indian Factory Act, 1891:

• increased the minimum age (from 7 to 9 years) and the maximum (from 12 to 14 years) for children,





- reduced maximum working hours for children to 7 hours a day,
- fixed maximum working hours for women at 11 hours per day with an one-and-a-half hour interval (working hours for men were left unregulated),
- Provided weekly holiday for all.

Source: ForumIAS

Q.9) "Poverty and UnBritish Rule in India" book written by which of the following?

- a) Dadabhai Naoroji
- b) Romesh Chandra Dutt
- c) Gopal Krishna Gokhale
- d) M G Ranade

ANS: A

Explanation: Dadabhai Naoroji, the 'Grand Old Man of India', who after a brilliant analysis of the colonial economy put forward the theory of economic drain in Poverty and UnBritish Rule in India.

- Other economic analysts included Justice Mahadeo Govind Ranade, Romesh Chandra Dutt (The Economic History of India), Gopal Krishna Gokhale, G. Subramaniya Iyer and Prithwishchandra Ray.
- The essence of nineteenth century colonialism, they said, lay in the transformation of India into a supplier of foodstuffs and raw-materials to the metropolis, a market for metropolitan manufacturers and a field for investment of British capital.
- These early nationalist analysts organised intellectual agitations and advocated a complete severance of India's economic subservience to Britain and the development of an independent economy based on modern industries.

Source: EPIC December 2021

Q.10) "Mohiniattam or Mohiniyattam" is an Indian classical dance form that evolved in which of the following state?

- a) Karnataka
- b) Tamil Nadu
- c) Andhra Pradesh
- d) Kerala

ANS: D

Explanation: About Mohiniyattam:

- Mohiniattam or Mohiniyattam is an Indian classical dance form that evolved in the state of Kerala, India, and is counted among the two popular dance arts of the state, the other being Kathakali.
- Although its roots date back to the age-old Sanskrit Hindu text on performing arts called 'Natya Shastra', similar to other Indian classical dance forms, Mohiniattam adheres to the Lasya type that showcases a more graceful, gentle and feminine form of dancing.
- Mohiniattam derives its name from the word 'Mohini', a female avatar of Lord Vishnu. Conventionally a solo dance performed by female artists, it emotes a play through dancing and singing where the song is customarily in Manipravala which is a mix of Sanskrit and Malayalam language and the recitation may be either performed by the dancer herself or by a vocalist with the music style being Carnatic.

Source: ForumIAS



Scheme/Programes/Institutions

Q.1) Consider the following statements about National Technical Textiles Mission:

- 1. Its implementation period is from FY20-21 to FY29-30.
- 2. The Mission aims to position India as a global leader in Technical Textiles.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About National Technical Textiles Mission:

- The Mission aims to position India as a global leader in Technical Textiles and improve the penetration level of technical textiles in the country.
- Its implementation period is from FY20-21 to FY23-24. India shares nearly 6% of the world market size of USD 250 billion.
- The penetration level of technical textiles is low in India at 5-10%, against 30-70% in advanced countries.
- Under the project, the Ministry of Textiles has cleared 20 strategic research projects in the areas of Specialty fibres and Geotextiles.

Source: EPIC January 2022

Q.2) Consider the following statements about National Atlas & Thematic Mapping Organisation (NATMO):

- 1. It primary function is compilation of the National Atlas of India in English only.
- 2. It is headquartered in Chennai.
- 3. It functions under Ministry of Earth Science.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) None

ANS: D

Explanation: About National Atlas & Thematic Mapping Organisation (NATMO):

- NATMO was established in 1997.
- It is a subordinate department under the Department of Science & Technology, Ministry of Science & Technology.
- It primary function is compilation of the National Atlas of India in Hindi, English and other regional languages. It is headquartered in Kolkata.

Source: EPIC January 2022



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Q.3) Consider the following statements about International Cooperative Alliance (ICA):

- 1. International Cooperative Alliance (ICA) was founded in 1895.
- 2. ICA is a United Nations Organization.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About International Cooperative Alliance (ICA):

- International Cooperative Alliance (ICA) was founded in 1895.
- It is an independent, non-governmental association that unites, represents and serves the co-operatives worldwide.
- ICA is not a United Nations Organization. However, the ICA enjoys General Consultative Status with the United Nations Economic and Social Council (UN-ECOSOC).
- ICA has 4 regional offices managing the regions: Africa, Americas, Asia-Pacific and Europe.
- It is headquartered in Brussels, Belgium. International Co-Operative Alliance Asia And Pacific (ICAAP) and National Cooperative Development Corporation (NCDC) have released a policy recommendation handbook on SAHAKAR PRAGYA Good Practices for Cooperatives.
- The Handbook is a compendium of guidelines, resources, methodologies, key learning, case studies of the best performing cooperatives in India and abroad and the outcome and impact.

Source: EPIC January 2022

Q.4) Consider the following statements about Asian Clearing Union (ACU):

- 1. Its objective is to facilitate payments among member countries that help in economizing on the use of foreign exchange reserves, reducing transfer costs and promoting trade among the participating countries.
- 2. India is not a member.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Asian Clearing Union (ACU):

- Asian Clearing Union (ACU) was established in 1974 at the initiative of the United Nations Economic and Social Commission for Asia and Pacific (ESCAP).
- Its objective is to facilitate payments among member countries that helps in economizing on the use of foreign exchange reserves, reducing transfer costs and promoting trade among the participating countries.
- Its members include the Central Banks and the Monetary Authorities of Bangladesh, Bhutan, India, Iran, Maldives, Myanmar, Nepal, Pakistan and Sri Lanka. ACU is headquartered in Tehran, Iran.
- India has recently confirmed a \$400 million currency swap with Sri Lanka while deferring another \$500 million due for settlement to the Asian Clearing Union (ACU).



Source: EPIC January 2022

Q.5) Which of the following statements about Africa50 is not correct?

- a) It is an infrastructure investment platform
- b) It is a platform for 50 African nations.
- c) POWERGRID has signed a Joint Development Agreement with Africa50 to develop the Kenya Transmission Project.
- d) All are correct.

ANS: B

Explanation: About Africa 50:

- Africa 50 is an infrastructure investment platform that contributes to Africa's economic growth by developing and investing in infrastructure projects and mobilizing public and private sector capital.
- Currently, Africa 50 has 31 shareholders comprising 28 African countries, the African Development Bank, the Central Bank of West African States (BCEAO), and Bank Al-Maghrib. Power Grid Corporation of India Limited (POWERGRID) has signed a Joint Development Agreement with Africa 50 to develop the Kenya Transmission Project.
- The Project aims to develop power transmission lines in Kenya under a PPP framework.

Source: EPIC January 2022

Q.6) Consider the following statements about Collective Security Treaty Organization (CSTO):

- 1. It is an intergovernmental military alliance in Eurasia.
- 2. Ukraine is one of its member states.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Collective Security Treaty Organization (CSTO):

- It is an intergovernmental military alliance in Eurasia that consists of select post-Soviet Union States.
- It originated from the conclusion of the Collective Security Treaty, which was signed in Tashkent (Uzbekistan) on May 15, 1992 by the heads of Armenia, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan.
- The treaty entered into force on April 20, 1994. As of today it has 6 member States: Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia, and Tajikistan.
- The organisation is based on the principle of collective security or the idea of 'one for all and all for one'; aggression against any one state in the organisation is considered to be an aggression against all other states.
- This is also the principle on which NATO, the UN and earlier the League of Nations were founded.

Source: EPIC January 2022

Q.7) Consider the following statements about New Development Bank (NDB):



- 1. NDB is a multilateral development bank jointly founded by the BRICS countries.
- 2. Egypt is the latest nation to join the NDB.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About New Development Bank (NDB):

- Egypt is the latest nation to join the NDB. Bangladesh, UAE and Uruguay had joined in September 2021.
- NDB is a multilateral development bank jointly founded by the BRICS countries at the 6th BRICS Summit in Fortaleza, Brazil in 2014.
- It aims to mobilise resources for infrastructure and sustainable development projects in emerging economies in areas such as transport, water and sanitation, clean energy, digital infrastructure, social infrastructure and urban development.
- The Bank got observer status in the UN General Assembly (UNGA) in 2018. The present members include Brazil, Russia, India, China, South Africa, Bangladesh, United Arab Emirates (UAE) Uruguay and Egypt.

Source: EPIC January 2022

Q.8) Blue Berets or Blue Helmets, recently seen in news is related to which of the following?

- a) Small habitable island nations
- b) UN Peacekeeping forces
- c) Water treatment technology
- d) Anomalies in Earth's exosphere.

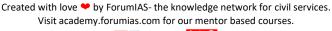
ANS: B

Explanation: About UN Peacekeeping Forces:

- UN Peacekeeping Forces were created in 1945.
- They are often referred to as Blue Berets or Blue Helmets because of their light blue berets or helmets.
- Their purpose is to provide security, political, and peace-building support to countries under conflicts. The forces help countries make the difficult, early transition from conflict to peace.
- They are guided by three basic principles:
 - > Consent of the parties;
 - Impartiality;
 - Non-use of force except in self-defense and defense of the mandate.
- Every peacekeeping mission is authorized by the UN Security Council.
- Member states contribute their manpower for Peacekeeping forces on a voluntary basis. The US has never contributed ground troops but contributes >25% of the UN's Peacekeeping budget.

Source: EPIC January 2022

Q.9) The term "2010 Strategic Concept" is related to which of the following?





- a) NATO
- b) Warsaw Pact
- c) Nuclear Non-Proliferation Treaty (NPT)
- d) START treaty

ANS: A

Explanation:

- Strategic Concepts lay down the Alliance's core tasks and principles, its values, the evolving security environment and the Alliance's strategic objectives for the next decade.
- The 2010 Strategic Concept defines NATO's cores tasks as: collective defense, crisis-management and cooperative security.

Source: ForumIAS

Q.10) Which of the following treaty/treaties is/are related to European Union?

- 1. Treaty of Lisbon
- 2. Treaty of Nice
- 3. Treaty of Amsterdam

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 only
- d) 1, 2 and 3

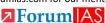
ANS: D

Explanation: About European Union:

- The European Union is based on the rule of law.
- This means that every action taken by the EU is founded on treaties that have been approved voluntarily and democratically by all EU member countries.
- A treaty is a binding agreement between EU member countries. It sets out EU objectives, rules for EU institutions, how decisions are made and the relationship between the EU and its member countries. The main treaties are:
- Treaty of Lisbon: Signed on 13 December 2007, to make the EU more democratic, more efficient and better able to address global problems, such as climate change, with one voice.
- Treaty of Nice: Signed on 26 February 2001, to reform the institutions so that the EU could function efficiently after reaching 25 member countries.
- Treaty of Amsterdam: Signed on 2 October 1997, to reform the EU institutions in preparation for the arrival of future member countries.

Source: ForumIAS

Science and Technology



Q.1) Consider the following statements about Global Women's Health Tech Awards:

- 1. The Award was launched by World Bank.
- 2. Its aim is to recognize innovative start-ups that leverage technology to improve women's health and safety in emerging markets.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Global Women's Health Tech Awards:

- The Award was launched in August, 2021 by the World Bank and the Consumer Technology Association (CTA).
- Its aim is to recognize innovative start-ups that leverage technology to improve women's health and safety in emerging markets.
- The awards are given under three categories: Reproductive Health and Pregnancy, Adolescent Health, and Women Safety and Security. The two start-ups namely NIRAMAI Health Analytics and InnAccel Technologies have received the award this year.
- These two start-ups have received support from the Department of Biotechnology (DBT) and BIRAC.

Source: EPIC January 2022

Q.2) Kalpana Chawla Centre for Research in Space Science and Technology has been inaugurated at which of the following place?

- a) Karnal, Haryana
- b) Chandigarh University, Mohali
- c) Punjab University
- d) Indian Institute of Space Science and Technology, Thiruvananthapuram

ANS: B

Explanation: About Kalpana Chawla Centre for Research in Space Science and Technology:

- The Centre has been inaugurated by the Defence Minister at the Chandigarh University, in Mohali, Punjab.
- The Centre has been named after India-born astronaut Kalpana Chawla, who lost her life in the 2003 Columbia shuttle disaster.
- The objective of the Centre is to train students in space science, satellite development and meeting future challenges in space research.
- The centre will also be the ground control station for Chandigarh University's Student Satellite (CUSat) along with a Geo-Spatial Centre for research.

Source: EPIC January 2022

Q.3) Consider the following statements about Environmental DNA (e-DNA):

- 1. eDNA is DNA that is collected from a variety of environmental samples such as soil, seawater, snow or air and also directly sampled from an individual organism.
- 2. It can also aid in tracking long-distance migratory birds and other birds' flying patterns.

Which of the statements given above is/are correct?





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- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Environmental DNA (e-DNA):

- Environmental DNA or eDNA is DNA that is collected from a variety of environmental samples such as soil, seawater, snow or air rather than directly sampled from an individual organism.
- Some sources of eDNA include faeces, mucus, gametes, shed skin, carcasses and hair.
 Airborne e-DNA could help understand the composition of animal communities and detect the spread of non-native species.
- It can also aid in tracking long-distance migratory birds and other birds' flying patterns. It can help boost biodiversity conservation efforts across the world.

Source: EPIC January 2022

Q.4) Chips to Start-up Programme (C2S) is being driven by which of the following?

- a) Ministry of Skill Development
- b) MSME
- c) Ministry of Electronics and Information (MeitY)
- d) AICTE

ANS: C

Explanation: About Chips to Start-up Programme (C2S):

- The Programme aims to train 85,000 qualified engineers in the area of Very-large-scale Integration (VLSI) and Embedded System Design.
- It is being driven by the Ministry of Electronics and Information (MeitY).

Source: EPIC January 2022

Q.5) Witj respect to Technical Textile, Which of the following statement is not correct?

- a) Technical textiles are products manufactured primarily for technical performance and functional properties rather than aesthetic characteristics.
- b) Technical textiles include textiles for automotive applications, medical textiles, geotextiles, agro-textiles and protective clothing.
- c) National Technical Textiles Mission has been launched by Ministry of Science and technology.
- d) National Technical Textiles Mission's implementation period is from FY20-21 to FY23-24.

ANS: C

Explanation: About Technical Textiles:

- Technical textiles are textiles materials and products manufactured primarily for technical performance and functional properties rather than aesthetic characteristics.
- Technical textiles include textiles for automotive applications, medical textiles (e.g., implants), geotextiles (reinforcement of embankments), agro-textiles (textiles for crop protection), and protective clothing (e.g., heat and radiation protection for fire fighter clothing, molten metal protection for welders, bulletproof vests, and spacesuits).

About National Technical Textiles Mission



- The Mission aims to position India as a global leader in Technical Textiles and improve the penetration level of technical textiles in the country.
- Its implementation period is from FY20-21 to FY23-24.
- India shares nearly 6% of the world market size of USD 250 billion. The penetration level of technical textiles is low in India at 5-10%, against 30-70% in advanced countries.
- Under the project, the Ministry of Textiles has cleared 20 strategic research projects in the areas of Specialty fibres and Geotextiles.

Source: EPIC January 2022

Q.6) Which of the following statements about IC15 is/are correct?

- 1. IC15 will measure the performance of the 15 most widely traded crypto-currencies.
- 2. SEBI has launched IC15 as India's first cryptocurrency index.

Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Explanation: About India's first Cryptocurrency Exchange:

- IC15 CryptoWire has launched India's first cryptocurrency index, IC15.
- It will measure the performance of the 15 most widely traded cryptocurrencies listed on leading crypto exchanges by market capitalization.

Source: EPIC January 2022

Q.7) The term 'Automatic Generation Control (AGC)', recently seen in news, is related to which of the following?

- a) Augmented Reality
- b) Power sector
- c) PSLV Mark III
- d) 5G Telecommunication

ANS: B

Explanation: About Automatic Generation Control (AGC):

- AGC has been launched by the Union Ministry of Power and New and Renewable
- Its aim is to ensure power balancing in real-time to keep supply and demand in sync for power generated through renewable energy.
- It is being operated by Power System Operation Corporation (POSOCO) through the National Load Despatch Centre (NLDC).
- Through AGC, NLDC can send signals to more than 50 power plants in the country every 4 seconds to maintain the frequency and reliability of the Indian Power System.
- This will ensure more efficient and automatic frequency control for handling variable and intermittent renewable generation.

Source: EPIC January 2022

Q.8) Which of the following statement about UV-C Disinfection Technology is/are correct?





- 1. It has been developed by the Council of Scientific & Industrial Research (CSIR).
- 2. UV-C deactivates viruses, bacteria, fungus and other bio-aerosols etc. with appropriate dosages using 254 nm UV light.

Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About UV-C Disinfection Technology:

- Ultraviolet-C or UV-C Disinfection Technology has been developed by the Council of Scientific & Industrial Research (CSIR).
- The technology is meant for the mitigation of airborne transmission of COVID-19.
- UV-C deactivates viruses, bacteria, fungus and other bioaerosols etc. with appropriate dosages using 254 nm (nanometre) UV light.
- The disinfection system can be used in auditoriums, large conference rooms, classrooms, malls etc. which provides a relatively safer environment for indoor activities in the current pandemic.
- It can also be used in buildings, transport vehicles, etc.

Source: EPIC January 2022

Q.9) The ability of certain materials to generate an electric charge in response to applied mechanical stress is termed as?

- a) De Haas-van Alphen effect
- b) Haas effect
- c) Piezoelectrical Effect
- d) Raman effect

ANS: C

Explanation: About Piezoelectrical Effect:

- Piezoelectric Effect is the ability of certain materials to generate an electric charge in response to applied mechanical stress.
- The piezoelectric effect is very useful in many applications that involve the production and detection of sound, generation of high voltages, electronic frequency generation and ultra-fine focusing of optical assemblies.
- The effect is also used in igniting mechanism for cigarette lighters. Indian scientists have recently proposed an efficient way to induce piezoelectric delta phase in polymer nanoparticles.

Source: EPIC January 2022

Q.10) Which of the following statements about Heartbeat Stars is/are not correct?

- 1. Heartbeat Star refers to special type of binary stars.
- 2. As they move apart, the light variation falls and becomes almost flat.

Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only



- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: About Heartbeat Stars:

- Heartbeat Star refers to special type of binary stars. Each star travels in a highly elliptical orbit around a common centre of mass.
- The distance between the two stars varies drastically as they orbit each other.
- When the stars are at their closest, there is a sudden increase in the brightness, with amplitude going up significantly.
- As they move apart, the light variation falls and becomes almost flat.
- This results in alternating peaks and troughs in their light curves.
- This pattern resembles the appearance of heat beat on an electrocardiogram of the human heart.
- Scientists have recently discovered a binary star named HD73619 in the Cancer constellation.

Source: EPIC January 2022



Q.1) Which of the following statements about Mahakali River is/are correct?

- 1. It joins Ghagra River in Uttar Pradesh, which is a tributary of Ganga.
- 2. Tanakpur hydro-electric project is on Mahakali River.

Select the correct answer using the codes given below:

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- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Mahakali River:

- It is also known as Sharda River or Kali Ganga in Uttarakhand.
- It joins Ghagra River in Uttar Pradesh, which is a tributary of Ganga.
- River Projects: Tanakpur hydro-electric project, Chameliya hydro-electric project, Sharda Barrage.
- Recently, the Union Cabinet has cleared a plan to build a new bridge connecting India and Nepal over the Mahakali River and link Dharchula in Uttarakhand with Nepal's Dharchula.

Source: EPIC January 2022

Q.2) Consider the following statements about Exercise Sea Dragon:

- 1. It is an annual China-led, multinational exercise.
- 2. It focuses on Anti-submarine warfare tactics.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Exercise Sea Dragon:

- It is an annual US-led, multinational exercise with a focus on Anti-submarine warfare tactics.
- It involves participation from navies of 6 countries United States, India, Australia, Canada, Japan and South Korea.

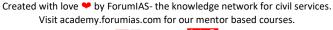
Source: EPIC January 2022

Q.3) Consider the following statements about Red Sanders:

- 1. It is endemic to a distinct tract of forests in Meghalaya.
- 2. It has again been listed in the 'endangered' category in the IUCN Red List.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2





d) Neither 1 nor 2

ANS: A

Explanation: About Red Sanders:

- Red Sanders (Pterocarpus santalinus) is a tree species found in thorny scrub, dry deciduous forests. It is endemic to a distinct tract of forests in Andhra Pradesh.
- Some contiguous patches in Tamil Nadu and Karnataka also see some wild growth.
- Red Sanders is known for its therapeutic properties. It is also used to make furniture, woodcraft and musical instruments.
- A tonne of Red Sanders costs between Rs 50 lakh to Rs 1 crore in the international market.
- It has again been listed in the 'endangered' category in the IUCN Red List. It faces threats due to illegal smuggling, over harvesting, and due to invasive species.

Source: EPIC January 2022

Q.4) Consider the following statements about India's First Open Rock Museum:

- 1. It has been inaugurated in the campus of the CSIR-National Geophysical Research Institute (NGRI) in Hyderabad.
- 2. The Museum has been set up with an aim to educate and enlighten the masses about several lesser-known facts about rocks.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About India's First Open Rock Museum:

- India's First Open Rock Museum has been inaugurated in the campus of the CSIR-National Geophysical Research Institute (NGRI) in Hyderabad.
- The Museum has been set up with an aim to educate and enlighten the masses about several lesser-known facts about rocks.
- The museum displays around 35 different types of rocks from different parts of India with ages ranging from 3.3 Billion years to around 55 Million years of the Earth's history.

Source: EPIC January 2022

Q.5) Consider the following statements about the BrahMos Missile:

- 1. It has been developed through a joint collaboration between India and Russia.
- 2. It is one of the fastest supersonic cruise missiles in the world with maximum speed of

Which of the statements given above is/are correct?

a) 1 only



- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About the BrahMos Missile:

- BrahMos Missile (PJ-10) has been developed through a joint collaboration between India and Russia.
- It is a medium range ramjet supersonic cruise missile. The Missile is capable of being launched from land, sea, sub-sea and air against the surface and sea-based targets.
- It is one of the fastest supersonic cruise missiles in the world with maximum speed of Mach 4 (i.e., 4 times the speed of sound in air).
- The range of the missile was originally capped at 290 km as per obligations of the Missile Technology Control Regime (MTCR).
- Following India's entry into the MTCR club in 2016, the range has been extended to 450 km and to 600 km.

Source: EPIC January 2022

Q.6.) Which of the following agreement/treaties is related to the framework set by the **Outer Space Treaty?**

- 1. The Rescue Agreement of 1968.
- 2. The Liability Convention of 1972.
- 3. The Moon Agreement of 1979.

Select the correct answer using the codes given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: D

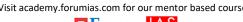
Explanation: About UN's intervention in Space Issues:

- The United Nations Office for Outer Space Affairs was created in 1958 to service the ad hoc Committee on the Peaceful Uses of Outer Space (COPUS).
- It has been serving as a focal point for international cooperation in the peaceful exploration and use of outer space.
- Several multilateral treaties have been adopted by the United Nations General Assembly to enable the orderly conduct of activities in outer space. The cornerstone of these is the Outer Space Treaty of 1967.

Associated Agreements and Treaties

- Four other treaties were also adopted to reinforce the framework set by the Outer Space Treaty. These treaties are:
- The Rescue Agreement of 1968 requires States to assist an astronaut in case of accident, distress, emergency or unintended landing.
- The Liability Convention of 1972 establishes the standards of liability for damage caused by space objects.
- The Registration Convention of 1975 requires States to register all objects launched into outer space with the United Nations.
- The Moon Agreement of 1979 elaborates on the provisions of the Outer Space Treaty as they apply to the Moon and other celestial bodies.

Source: EPIC January 2022





Q.7) Kalapani Dispute, recently seen in news is related to which of the following?

- a) India and Nepal
- b) India and Bhutan
- c) India and Bangladesh
- d) India and Pakistan

ANS: A

Explanation: About Kalapani Dispute:

- Kalapani is located at an altitude of 3600m on the Kailash Mansarovar route. It borders Uttarakhand in India and Sudurpaschim Pradesh in Nepal.
- Since the Indo-China war of 1962, Kalapani has been controlled by India's Indo-Tibetan Border Police.
- The 1816 Treaty of Sagauli signed between British India and Nepal defined river Mahakali as the western border of Nepal.
- However, discrepancy in locating the source of the Mahakali river led to boundary disputes between India and Nepal with each country producing maps supporting their own claims.
- India claims that the river begins in Kalapani as this is where all its tributaries merge.
- On the other hand, Nepal claims not only the Kalapani region but also Limpiyadhura and Lipulekh as parts of its territory. All three areas are to the east of the river Kali.

Source: EPIC January 2022

Q.8) Which one of the following statements regarding cotton is incorrect?

- a) Cotton is tropical crop
- b) Cotton is grown in rabi crop
- c) Cotton requires clean sky during following stage
- d) None of the above

ANS: B

Explanation: About Cotton:

- Cotton is a tropical crop grown in Kharif season in semi-arid area of the country.
- Cotton requires clear sky during flowering stage.
- India ranks fourth in the world in the production of cotton after china, USA and Pakistan and account for about 8.3 percentage of production of cotton in the world.

Source: NCERT

Q.9) The term 'aus', 'aman' and 'boro' are related to:

- a) Tribes in northeast region
- b) Local names of the three season in Punjab
- c) Names of local winds in northern India
- d) Three rice crops in one agricultural year

ANS: D



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Explanation: Rice cultivation:

- Rice is a staple food for the overwhelming majority of population in india.
- It is biseasonal crop means it can grow in Kharif as well as Rabi season.
- In himalayas and north western parts of the country, it is grown as a kharif crop during southwest monsoon season.
- However in southern states and west bangal the climate condition allows the cultivation of two or three crops of rice in an agricultural year.
- In west bengal farmers grow three crops of rice called 'aus', 'aman' and 'boro'.

Source: NCERT

Q.10) Strait of Gibraltar connects which of the following water bodies?

- a) Red sea and Arabian Sea
- b) Atlantic sea and Mediterranean Sea
- c) Aegean sea and Sea of Marmara
- d) Sea of Japan and sea of Okhotsk

ANS: B

Explanation:

The strait of Gibraltar is narrow strait that connects the Atlantic Ocean to the Mediterranean Sea and separates Gibraltar and peninsular Spain in Europe from morocco and Ceuta Africa.

Source: Atlas



Q.1) With reference to property rights of daughters, consider the following statements:

- 1. The daughters will get the property of the father by survivorship.
- 2. Daughters have coparcenary rights by birth.

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Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: The Supreme Court has ruled that the daughters will have equal rights to their father's property even prior to the enactment of the Hindu Succession Act (HSA) of 1956.

Implications of the Judgment:

- The Supreme Court conferred daughters with equal right to father's self-acquired property even prior to codification of Hindu Personal Laws and enactment of the Hindu Succession Act in 1956. The Court said that the law of inheritance would apply to partition of properties even if the father had died intestate (without making any Will) before 1956;
- The daughters will get the property of the father as a matter of inheritance and not by survivorship which was applicable before 1956. Daughters would, thus, inherit the property in preference to other claimants (e.g., sons of the brother of deceased father). The Supreme Court was hearing a case concerned with the right of the daughter to inherit the self-acquired property of her father in the absence of any other legal heir;
- The Supreme Court in 2020 clarified that daughters had coparcenary rights by birth. Coparcenary refers to a person who has the capacity to assume a legal right in ancestral property.

Source: EPIC January 2022

Q.2) With reference to the Article 178 of Indian Constitution, consider the following statements:

- 1. Every Legislative Assembly of a State shall, as soon as may be, choose two members of the Assembly to be respectively Speaker and Deputy Speakers.
- 2. The constitution says that the Governor shall fix a date to elect the Speaker on the recommendation of the Chief Minister.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Article 178:

- Every Legislative Assembly of a State shall, as soon as may be, choose two members of the Assembly to be respectively Speaker and Deputy Speakers thereof...
- The Constitution assigns no role to the Governor in the election of Speaker and Deputy Speaker.
- The State Legislative Assemblies formulate their own rules regarding the election. Maharashtra Assembly has a rule that the Governor shall fix the date of election of the Speaker.
- Rule 6: The Governor shall fix a date to elect the Speaker on the recommendation of the Chief Minister and the Secretary shall send to every member notice of the date so fixed.

Source: EPIC January 2022



Q.3) Which of the following Article of Indian constitution says that there shall be a Council of Ministers with the Chief Minister at the head to aid and advice the Governor?

- a) Art 161
- b) Art 152
- c) Art 163
- d) Art 165

ANS: C

Explanation: About Article 163:

- There shall be a Council of Ministers with the Chief Minister at the head to aid and advice the Governor in the exercise of his functions, except in so far as he is by or under this constitution required to exercise his functions or any of them in his discretion.
- If a question arises that whether the Governor should act on his discretion in a particular matter, the Governor's decision in his discretion shall be final.

Source: EPIC January 2022

Q.4) Consider the following Provisions related to the Election Commissioners:

- 1. The number of Election Commissioners is decided by the Council of Ministers.
- 2. CEC can only be removed in a manner like a Judge of the Supreme Court.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Provisions related to the Election Commissioners:

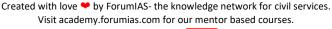
- Article 324 of the Constitution of India lists down the provisions related to the Election Commission and its Officers.
- Article 324(2) states that the number of Election Commissioners (other than the Chief Election Commissioner (CEC)) is decided by the President of India.
- Article 324(5) states that while the CEC can only be removed in a manner like a Judge
 of the Supreme Court; other Election Commissioners can be removed on the
 recommendation of the CEC.

Source: EPIC January 2022

Q.5) Consider the following statements about Customary International Law:

- 1. It refers to international obligations arising from established international practices, as opposed to obligations arising from formal written conventions and treaties.
- 2. They are non-binding legal rules that have developed on global or region levels through continued practice.

Which of the statements given above is/are not correct?





- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Customary International Law:

- According to the University of Cornell, Customary International Law refers to international obligations arising from established international practices, as opposed to obligations arising from formal written conventions and treaties;
- Customary international law results from a general and consistent practice of states that they follow from a sense of legal obligation;
- They are binding legal rules that have developed on global or region levels through continued practice;
- Examples of customary international laws include the doctrine of non-refoulement and the granting of immunity for visiting Heads of State.
- In legal terminology, Municipal law is the national, domestic, or internal law of a sovereign state. Municipal law includes national state, provincial, territorial, regional, or local law.

Source: EPIC January 2022

Q.6) The Central Vigilance Commission was established under the recommendation of which of the following?

- a) Punchi Commission
- b) Venkata Chellaih Committee
- c) Santhanam Committee
- d) Second ARC commission

ANS: C

Explanation: The Central Vigilance Commission (CVC):

- CVC is the main agency for preventing corruption in the Central government.
- It was established in 1964 by an executive resolution of the Central government.
- Its establishment was recommended by the Santhanam Committee on Prevention of Corruption (1962–64).

Source: Laxmikanth

Q.7) "Article 323B" of Indian Constitution is related to which of the following?

- a) Special officer for Linguistic minorities
- b) Tribunal for the adjudication of election disputes
- c) Central Administrative Tribunal
- d) Interstate Council





ANS: B

Explanation: Article 323B:

- It empowers the appropriate legislature (Parliament or state legislature) to establish a tribunal for the adjudication of election disputes.
- It also provides for the exclusion of the jurisdiction of all courts (except the special leave appeal jurisdiction of the Supreme Court) in such disputes.

Source: ForumIAS

Q.8) The official campaign of elections ends before in how many hours?

- a) 12 hours
- b) 24 hours
- c) 48 hours
- d) 72 hours

ANS: C

Explanation: The official campaign lasts at least two weeks from the drawing up of the list of nominated candidates, and officially ends 48 hours before polling closes.

Source: EPIC January 2022

Q.9) Consider the following statements regarding the National Consumer Disputes Redressal Commission:

- 1. It was established under the Consumer Protection Act of 1986.
- 2. The commission is headed by a sitting or retired judge of the Supreme Court of India.

Which of the statements given above is/are NOT correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

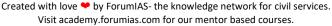
Explanation: The National Consumer Disputes Redressal Commission (NCDRC):

- India is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act of 1986.
- Its head office is in New Delhi. The commission is headed by a sitting or retired judge of the Supreme Court of India.

Source: Governance in India by Laxmikanth

Q.10) The term Principle of Non-Refoulement often seen in news is related to which of the following?

- a) Economic offender
- b) Refugees
- c) Right to property
- d) Right to Information





ANS: B

Explanation: Non-refoulement is a fundamental principle of international law:

• It prohibits states from forcibly returning refugees to conditions that caused them to flee their homes in the first place, where they would be likely in danger of persecution based on race, religion, nationality, membership of a particular social group or political opinion.

Source: EPIC January 2022



Q.1) Consider the following statements about AT1 Bonds:

- 1. These are secured bonds that have perpetual tenure.
- 2. These bonds are typically used by banks to bolster their core or tier-1 capital.

Which of the statements given above is/are correct?

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- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About AT1 Bonds:

- AT1 Bonds stand for additional tier-1 bonds. These are unsecured bonds that have perpetual tenure i.e., the bonds have no maturity date.
- These bonds are typically used by banks to bolster their core or tier-1 capital. These bonds were introduced by the Basel accord after the global financial crisis.
- These bonds offer higher returns to investors but compared with other debt products, these instruments carry a higher risk as well.
- AT1 bonds are subordinate to all other debt and only senior to common equity.

Source: EPIC January 2022

Q.2) Consider the following statements about Adjusted Gross Revenue (AGR):

- 1. AGR is a fee-sharing mechanism between the government and the telecom companies.
- 2. It is divided into spectrum usage charges and licensing fees.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Adjusted Gross Revenue (AGR):

- AGR is a fee-sharing mechanism between the government and the telecom companies who shifted to the 'revenue-sharing fee' model in 1999, from the 'fixed license fee' model.
- It is basically the usage and licensing fee that telecom operators are charged by the Department of Telecommunications (DoT).
- It is divided into spectrum usage charges and licensing fees that are fixed between 3-5% and 8% respectively.

Source: EPIC January 2022

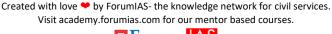
Q.3) With reference to the Investor-State Dispute Settlement (ISDS), which of the following statements is incorrect?

- a) It is a system throughwhich investors can sue countries for discriminatory practices concerning foreign direct investment.
- b) The protection provided by ISDS acts as a lever to boostforeign investment.
- c) ISDS is an instrument of public international law
- d) India accepted the proposal for a global investment pact.

ANS: D

Explanation: About Investor-State Dispute Settlement (ISDS):

Investor-state dispute settlement (ISDS) or investment court system (ICS) is a system throughwhich investors can sue countries for discriminatory practices concerning foreign direct investment.





- The protection provided by ISDS acts as a lever to boostforeign investment. ISDS is an instrument of public international law and is included in a number of bilateral investment treaties (BITs).
- ISDS often takes place under international arbitraltribunals governed by different rules or institutions, such as the London Court of International Arbitration(LCIA), the International Chamber of Commerce (ICC), the Hong Kong International Arbitration Centre(HKIA), or the UNCITRAL Arbitration Rules.

What new proposal has been made?

- The EU and Canada have got into an investment agreement in which they have got the much contentious ISDS which allows corporates to take sovereign governments to international arbitration.
- They now want it to be the template for a multilateral agreement.
- Investor-state dispute settlement (ISDS) or investment court system (ICS) is a system through which individual companies can sue countries for alleged discriminatory practices.
- ISDS is a neutral, international arbitration procedure. Like other forms of commercial, labour, or judicial arbitration, ISDS seeks to provide an impartial, law-based approach to resolve conflicts.
- The proposal for a global investment pact, made at an informal breakfast meeting of Trade Ministers of select countries in Davos, was rejected by India, Brazil, Japan and Argentina.

Source: EPIC January 2022

Q.4) Consider the following statements about the Green Energy Corridor Project for Intra-State Transmission System (InSTS):

- 1. It aims at synchronizing electricity produced from renewable sources.
- 2. The GEC-Intra State Transmission System(InSTS) project is sanctioned in 2020-21.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About the Green Energy Corridor Project for Intra-State Transmission System (InSTS):

- The Green Energy Corridor(GEC) Project aims at synchronizing electricity produced from renewable sources such as solar and wind with conventional power stations in the grid.
- The GEC-Intra State Transmission System(InSTS) project was sanctioned in 2015-16, for evacuation and integration of the renewable energy capacity through setting up oftransmission lines and increasing transformation capacity of substations.

Source: EPIC January 2022

Q.5) Consider the following statements:

- 1. These are electronic receipts issued on the basis of a deposit of underlying physical gold.
- 2. Gold Exchange would be an international platform for buying and selling EGRs issued against physical gold.

Which of the statements given above is/are correct?



- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About the Electronic Gold Receipts (EGRs) and Gold Exchange:

- These are electronic receipts issued on the basis of a deposit of underlying physical gold. EGRs would pave the way for the operationalization of a gold exchange in India.
- Gold Exchange would be a national platform for buying and selling EGRs issued against physical gold.
- Investors can trade in EGRs on stock exchanges and the proposed gold exchange.
- The transaction in a gold exchange has been divided into three parts:
 - a) Conversion of physical gold into EGR;
 - b) Trading of EGR on a stock exchange;
 - c) Conversion of EGR into physical gold.
- SEBI would regulate the entire ecosystem of the proposed gold exchange. It would be the sole regulator for the exchange, including for vaulting, assaying gold quality and fixing delivery standards.

Key features of the Gold Exchange

- Stock exchanges can launch contracts of different denominations for trading and conversion of EGR intogold.
- SEBI has brought in fungibility and interoperability between vault managers for the ease of investors.
- Physical gold deposited at one location can be withdrawn from a different location of any vault manager.

Benefits of Gold Exchange

Gold exchange is expected to offer a lot of benefits such as efficient and transparent price discovery, investment liquidity and assurance in the quality of gold. It is also expected to create a national pricing structure for gold. It will also promote compliance among market participants.

Source: EPIC January 2022

Q.6) The Silver line project is sometimes seen in news is related to which of the followingstate?

- a) Goa
- b) Karnataka
- c) Andhra Pradesh
- d) Kerala

Explanation: The Kerala Rail Development Corporation (KRDCL):

It is confident that the66,405-crore Thiruvananthapuram-Kasaragod semi-highspeed rail corridor project (named Silver Line) for which year 2024 has been set as the





deadline, will be economically feasible and attain operational break-even within 10 years of being commissioned.

- Of the total cost of the 532-km project, around 50% will be loan at less than 1% interest from multilateral lending agencies such as KfW, AIIB (Asian InfrastructureInvestment Bank), JICA (Japan International Cooperation Agency), or ADB (Asian Development Bank).
- Repayment is assured since there will be a rate of return of 8.1% on the investment.
- The balance amount will be raised from equity and (subordinate) debt from from the State and Central governments.

Source: ForumIAS

Q.7) Arrange the following conventions in chronological order of its establishment:

- 1. Paris Convention for the Protection of Industrial Property
- 2. World Intellectual Property Organization
- 3. Berne Convention for the Protection of Literary and Artistic Works

Select the correct answer using the codes given below:

- a) 1 2 3
- b) 1 3 2
- c) 3 1 2
- d) 3 2 1

ANS: B

Explanation:

- The importance of intellectual property was first recognized in the Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886).
- Both treaties are administered by the World Intellectual Property Organization (WIPO) (1967).

Source: WIPO

Q.8) With reference to the "Municipal bonds", which of the following statements is/arecorrect?

- 1. It is a kind of debt instrument where investors offer loans to local governments.
- 2. Surat was the first city in south Asia to launch a municipal bond.

Select the correct answer using the code given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2



ANS: A

Explanation:

- A municipal bond is a kind of debt instrument where investors offer loans to local governments.
- They are issued by civic bodies for specific projects and usually have a 10-year tenure.
- The ULB pays the annual interest on the bonds to the investor at the decided rate.
- Ahmedabad was the first city in south Asia to launch a municipal bond of Rs 100crore in 1998, which was completely subscribed.
- Surat Municipal Corporation was the second city in Gujarat to announce bonds in 2018, to fund a sewage treatment project worth Rs 450 crore.
- The Vadodara Municipal Corporation (VMC) is expected to launch municipal bondsin January, and will become the third Urban Local Body (ULB) in Gujarat to use this method to raise money to fund development work sanctioned under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT).

Source: ForumIAS

Q.9) SampoornaBima Gram Yojana is implemented by which of the following?

- a) Department of Agriculture
- b) Department of Cooperation
- c) Department of Finance
- d) Department of Posts

ANS: D

Explanation:

- SampoornaBima Gram Yojana aims to provide affordable life insurance services to people living in rural areas of the country through the postal network.
- It will identify at least one village (having a minimum of 100 households) in each of the revenue districts of the country and cover all households with a minimum of one RPLI (Rural Postal Life Insurance) policy.
- All villages under SansadAdarsh Gram Yojana would also be covered under the scheme to turn them into SampoornaBeema Gram.

Source: ForumIAS

Q.10) Consider the following statements regarding "Index of Industrial Production (IIP)":

- 1. IIP is a composite indicator that measures changes in the volume of production of abasket of industrial products.
- 2. The Base year of IIP is 2011 12.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2



ANS: C

Explanation: The Index of Industrial Production (IIP):

- Itis a composite indicator that measures changes in the volume of production of a basket of industrial products.
- The index is compiled and published monthly by the Central Statistical Organisation(CSO), Ministry of Statistics and Programme. It is implemented six weeks after thereference month ends, i.e a lag of six weeks.
- The Base Year of the Index of Eight Core Industries has been revised from the year 2004-05 to 2011-12 from April, 2017.

Source: ForumIAS



Q.1) Consider the following statements about Cheetah in India:

- 1. Cheetah became extinct in independent India in 1952.
- 2. Government is planning to translocate cheetah to Kuno Palpur National Park in Madhya Pradesh

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only



- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Re-Introduction of Cheetah in India:

- The Cheetah became extinct in independent India in 1952.
- The Ministry of Environment, Forest and Climate Change is planning to translocate around 8-12 cheetahs from South Africa, Namibia and Botswana to Kuno Palpur National Park in Madhya Pradesh.
- This could be the world's first intercontinental cheetah translocation project.

Source: EPIC January 2022

Q.2) Consider the following statements about Asian Waterbird Census:

- 1. The census is conducted by Wetlands International.
- 2. In India, AWC is coordinated by the Wetlands International South Asia and the Zoological Survey of India.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Asian Waterbird Census:

- Asian Waterbird Census (AWC) was started in 1987.
- It is an annual exercise to count the waterbirds and monitor the wetlands for conservation of migratory birds and their habitats along the Central Asian Flyway.
- The census is conducted by Wetlands International and forms part of a global waterbird monitoring programme called the International Waterbird Census (IWC).
- In India, AWC is coordinated by the Wetlands International South Asia and the Bombay Natural History Society.
- The 2022 census showed fall in the species density in Okhla Bird Sanctuary (from 73 in 2021 to 47 in 2022) and Sanjay Lake while it increased in Hastinapur Wildlife Sanctuary (from 38 to 45).

Source: EPIC January 2022

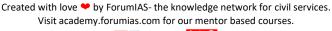
Q.3) Eucalyptus, poplar, willow, miscanthus and switchgrass are examples of which of the following category?

- a) Invasive Species
- b) Bioenergy Crops
- c) Carnivorous plants
- d) Endemic species of Western Ghats

ANS: B

Explanation: About Bioenergy Crops

- Bioenergy is the energy derived from recently living material such as wood, crops, or animal waste.
- Bioenergy crops are defined as any plant material used to produce bioenergy.





- These crops have the capacity to produce large volumes of biomass, high energy potential and can be grown in marginal soils.
- Some examples of bioenergy crops: Eucalyptus, poplar, willow, miscanthus and switchgrass.

Source: EPIC January 2022

Q.4) A report on India's climate has been released by which of the following institution?

- a) NITI Aayog
- b) Ministry of Environment, Forest and Climate Change
- c) India Meteorological Department
- d) ISRO

ANS: C

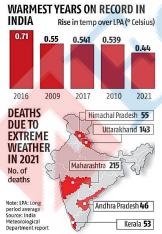
Explanation: India Meteorological Department (IMD) has released its report on India's climate.

Key Findings of the Report

- 1. 2021 has been the fifth-warmest year since 1901, and the decade 2012-2021, was the warmest on record;
- 2. 11 of the 15 warmest years on record were between 2007 and 2021;
- 3. India's averaged annual mean temperature from 1901-2021 showed an increasing trend, particularly in the case of maximum temperature;
- 4. In 2021, the annual mean land surface air temperature was 0.44 degrees Celsius above the long period average (LPA). LPA IS based on temperatures between 1981 and 2010.

Effects of rising average temperature

- It has a cascading effect on extreme weather events, crop patterns, and urban disaster management.
- Heavy rainfall and flood-related incidents: It claimed over 750 lives with 215 in Maharashtra, 143 in
- Uttarakhand, 55 in Himachal Pradesh, 53 in Kerala and 46 in Andhra Pradesh.



Source: EPIC January 2022

Q.5) Which of the following institution publishes the Climate Change Performance Index?

a) UNESCO



- b) World Bank
- c) Germanwatch
- d) UNDP

ANS: C

Explanation: About Climate Change Performance Index (CCPI):

- The Climate Change Performance Index published by Germanwatch, CAN International and the NewClimate Institute evaluates and compares the climate protection performance of 56 countries and the EU.
- The Climate Change Performance Index is an independent monitoring tool of countries' climate protection performance.
- It aims to enhance transparency in international climate politics and enables the comparability of climate protection efforts and progress made by individual countries.
- On the basis of standardised criteria, the index evaluates and compares the climate protection performance of 56 countries and the EU that are, together, responsible for nearly 90 percent of global greenhouse gas emissions.

Source: ForumIAS

Q.6) Under which of the following Act, the Animal Welfare Board of India (AWBI) established?

- a) The Indian Forest Act, 1927
- b) The Prevention of Cruelty to Animals Act, 1960
- c) The Wildlife Protection Act, 1972
- d) The Forest (Conservation) Act, 1980

ANS: B

Explanation: About Animal Welfare Board of India (AWBI):

- The Animal Welfare Board of India is a statutory advisory body on Animal Welfare Laws and promotes animal welfare in the country.
- Established in 1962 under Section 4 of the Prevention of Cruelty to Animals Act, 1960 (No. 59 of 1960), the Animal Welfare Board of India was started under the stewardship of Late Smt. Rukmini Devi Arundale, well known humanitarian.
- From ensuring that animal welfare laws in the country are diligently followed, to provide grants to Animal Welfare Organizations and advising the Government of India on animal welfare issues, the Board has been the face of the animal welfare movement in the country for the last 50 years.
- The Board consists of 28 Members.
- The term of office of Members is for a period of 3 years.

Source: ForumIAS

Q.7) Consider the following statements with respect to Malabar Civet:

- 1. It is endemic to Western Ghats.
- 2. According to IUCN it is critically endangered animal.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only



- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Malabar Civet:

- The Malabar large spotted civet is one of the world's rarest mammals.
- According to IUCN red list it is critically endangered animal.
- The Malabar large spotted civet's original habitat was found in the evergreen rain forest belt in the Western Ghats of southwest India, where it lived in wooded plains and adjoining hill slopes.
- Natural forests have almost completely disappeared in the entire stretch of the coastal Western Ghats due to human activities.
- The present vegetation consists mostly of plantations.
- The cashew plantations are the least disturbed.
- They are not weeded and have a dense understory of shrubs and grasses.
- For a terrestrial species such as the Malabar large spotted civet, these thickets can provide important cover.
- However, it is likely that the cashew plantations are a 'refuge' rather than a preferred habitat.
- Furthermore, most captures of this species in the last 30 years have been in valleys, around riparian areas.
- This suggests possible dependence on shallow waterways where the civet forages at night.

Source: The Hindu

Q.8) Consider the following statements with respect to Coal bed methane (CBM) in India:

- 1. It is a conventional form of natural gas found in coal deposits or coal seams.
- 2. It is considered as an alternative source for augmenting India's energy resource.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: About Coal bed methane (CBM):

- CBM, like shale gas, is extracted from what are known as unconventional gas reservoirs where gas is extracted directly from the rock that is the source of the gas (shale in case of shale gas and coal in case of CBM).
- The methane is held underground within the coal and is extracted by drilling into the coal seam and removing the groundwater.
- The resulting drop in pressure causes the methane to be released from the coal.
- It is considered as an alternative source for augmenting India's energy resource.

Source: ForumIAS



Q.9) "Dachigam national park" is located in which of the following State/Union Territory?

- a) Pondicherry
- b) Himachal Pradesh
- c) Jammu & Kashmir
- d) Arunachal Pradesh

ANS: C

Explanation: Dachigam National Park is located 22 km from Srinagar in Jammu and Kashmir. The name literally stands for 'ten villages', which could be in memory of the ten villages that were relocated in order to create the park. The Park is only 141 sq. kms. and roughly rectangular in shape, approximately 23.5km by 6km. It is best considered as two sections - Upper and Lower Dachigam. Lower Dachigam, in the west, comprises approximately a third of the total area and is the area most accessible to a visitor. Upper Dachigam in the east extends over the higher reaches and is a good day's trek from the nearest road head. Dachigam was initially established to ensure the supply of clean drinking water to Srinagar city. A protected area since 1910, it was declared as a national park in 1981. The park is best known as the home of the hangul, or Kashmir stag.

Source: EPIC January 2022

Q.10) Consider the following statements with respect to Chlorofluorocarbons (CFCs):

- 1. Chlorofluorocarbons (CFCs) are toxic and flammable chemicals containing atoms of carbon, chlorine, and fluorine.
- 2. CFCs are used in the manufacture of aerosol sprays, blowing agents for foams and packing materials.

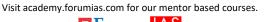
Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Chlorofluorocarbons (CFCs):

- Chlorofluorocarbons (CFCs) are nontoxic, nonflammable chemicals containing atoms of carbon, chlorine, and fluorine.
- They are used in the manufacture of aerosol sprays, blowing agents for foams and packing materials, as solvents, and as refrigerants.
- CFCs are classified as halocarbons, a class of compounds that contain atoms of carbon and halogen atoms.
- Individual CFC molecules are labeled with a unique numbering system.





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- For example, the CFC number of 11 indicates the number of atoms of carbon, hydrogen, fluorine, and chlorine (e.g. CCl3F as CFC-11).
- The best way to remember the system is the "rule of 90" or add 90 to the CFC number where the first digit is the number of carbon atoms (C), the second digit is the number of hydrogen atoms (H), and the third digit is number of the fluorine atoms (F).

Source: EPIC January 2022



History/Art and Culture

Q.1) Consider the following statements about the concept of 'Nai Talim' during preindependence period:

- 1. The idea was proposed by Maulana Abul Kalam Azad in 1937.
- 2. The concept laid emphasis on making mother tongue as the medium of instruction in addition to free compulsory education to the students.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About Nai Talim:

- The phrase Nai Talim is a combination of two words: Nai Means 'New' and Talim a Urdu word-means 'Education'.
- Mahatma Gandhi introduced the concept of Nai Talim in 1937.
- The concept laid emphasis on making mother tongue as the medium of instruction in addition to free compulsory education and skill training to the students.
- The concept was based on four basic principles:

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- (1) Education or learning in mother tongue along with handicraft work;
- (2) Work should be linked with most useful vocational needs of the locality;
- (3) Learning should be linked with vocational work;
- (4) Work should be socially useful and productive.

Source: EPIC January 2022

Q.2) Consider the following statements with respect to Dutch Settlements in Pre-Independent India:

- 1. The Dutch founded their first factory in Masulipatnam in 1605.
- 2. No Dutch settlements on Coromandel Coast.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: After their arrival in India, the Dutch founded their first factory in Masulipatnam (in Andhra) in 1605.

- They went on to establish trading centres at different parts of India and thus became a threat to the Portuguese.
- They captured Nagapatam near Madras (Chennai) from the Portuguese and made it their main stronghold in South India.
- The Dutch established factories on the Coromandel Coast, in Gujarat, Uttar Pradesh, Bengal and Bihar. In 1609, they opened a factory in Pulicat, north of Madras.

Source: ForumIAS

Q.3) "Treaty of Ryswick" was concluded between which of the following nations in 17th Century?

- a) French & English
- b) French & Portuguese
- c) French & Dutch
- d) Dutch & Portuguese

ANS: C

Explanation: The French position in India was badly affected with the outbreak of war between the Dutch and the French. Bolstered by their alliance with the English since the Revolution of 1688, the Dutch captured Pondicherry in 1693. Although the Treaty of Ryswick concluded in September 1697 restored Pondicherry to the French, the Dutch garrison held on to it for two more years.

Source: Spectrum's Modern History of India

Martial Art form

0.4) Match the following Indian Martial Art forms with their respective states:

1. Gatka A. Kerala 2. Kalaripayattu B. Tamil 3. Silambam C. Punjab 4. Cheibi Gad-ga D. Manipur

State



Select the correct answer using the codes given below:

- a) 1-D, 2-C, 3-A, 4-B
- b) 1-C, 2-B, 3-A, 4-D
- c) 1-C, 2-A, 3-B, 4-D
- d) 1-C, 2-D, 3-B, 4-A

ANS: C

Explanation: Kalaripayattu is the oldest existing martial art form indigenous to Kerala. Kalaripayattu is practiced by women also.

The state of Tamil Nadu is considered to be the cradle of modern and scientific staff fencing, popularly known in Tamil as Silambam. The Pandya king promoted Silambam fencing. Cheibi Gad-ga in one the Manipur's most ancient martial arts. The fighting equipments comprises of a sword and a shield.

Gatka is a weapon based Indian martial art basically created by the Sikhs of Punjab. The weapons used may be stick, sword, kirpan or kataar. Gatka is displayed during the different celebrations or at fairs in Punjab.

Source: Spectrum's Art and Culture

Q.5) Consider the following statements about Indus Valley Civilization:

- 1. The most common animal motif on the seals was unicorn, other important animal motif was of cow.
- 2. Most of the seals are circular in shape.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: None of the statement is correct, as the animal motifs include images of unicorn, humped bull, rhinoceros, tiger, elephant, buffalo, bison, goat etc. but there is no evidence of cow on any seal. Most of the seals are square in shape, even triangulay, rectangular and circular seals were also used.

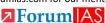
Source: NCERT

Q.6) Which of the following is correct sequence of dynasties of Vijayanagar Empire?

- a) Saluva, Sangama, Aravidu, Tuluva
- b) Sangama, Saluva, Tuluva, Aravidu
- c) Sangama, Saluva, Aravidu, Tuluva

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d) Saluva, Sangama, Tuluva, Aravidu

ANS: B

Explanation: The Vijayanagar Empire (1336-1 672 A.D.):

Harihara and Bukka is the founder the Vijayanagar City in 1336 A.D. on the southern banks of Tungabhadra. They made Hampi as the capital city. They served under Vira Ballala III, the Hoysala King. Vijayanagar Empire was ruled by four important dynasties and they are:

- (1) Sangama
- (2) Saluva
- (3) Tuluva
- (4) Aravidu

Source: NCERT

Q.7) Under which treaty Portugal could claim and occupy everything east of the imaginary line in Atlantic while Spain could claim everything west of the Atlantic?

- a) Treaty of Paris
- b) Treaty of Lisbon
- c) Treaty of Tordesillas
- d) Treaty of Rome

ANS: C

Explanation: In 1497, under the Treaty of Tordesillas (1494), the rulers of Portugal and Spain divided the non-Christian world between them by an imaginary line in the Atlantic, some 1300 miles west of the Cape Verde Islands. Under the treaty, Portugal could claim and occupy everything to the east of the line while Spain could claim everything to the west.

Source: NCERT

Q.8) Which of the following Maratha divisions is correctly matched?

DivisionLocation1. PeshwaPoona2. ScindiaGwalior3. HolkarsNagpur

Select the correct answer using the codes given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3 only

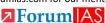
ANS: A

Explanation: Maratha Empire ruled Indian sub-continent in 18th century. The empire formally existed from 1674 with the coronation of Chhatrapati Shivaji and ended in 1818 with the defeat of Peshwa Bajirao II. There were following division in Maratha Empire:

- Gaekwad at Baroda
- Bhonsle at Nagpur
- Holkars at Indore
- Scindias at Gwalior
- Peshwas at Poona

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Source: NCERT

Q.9) Anandamath, a semi-historical novel by Bankim Chandra Chattopadhyay, is based on which of the following civil uprising?

- a) Vizayanagaram revolt
- b) Sanyasi revolt
- c) Indigo revolt
- d) Dhundia revolt

ANS: B

Explanation: The disastrous famine of 1770 and the harsh economic order of the British compelled a group of sanyasis in Eastern India to fight the British yoke, Originally peasants, even some evicted from land, these sanyasis were joined by a large number of dispossessed small zamindars, disbanded soldiers and rural poor. They raided Company factories and the treasuries, and fought the Company's forces. It was only after a prolonged action that Warren Hastings could subdue the sanyasis. Equal participation of Hindus and Muslims characterised the uprisings, sometimes referred to as the Fakir Rebellion. Majnum Shah (or Majnu Shah), Chirag Ali, Musa Shah, Bhawani Pathak and Debi Chaudhurani were important leaders. Debi Chaudhurani's participation recognizes the women's role in early resistances against the British.

Anandamath, a semi-historical novel by Bankim Chandra Chattopadhyay, is based on the Sanvasi Revolt.

Source: NCERT

Q.10) Consider the following statements:

- 1. Colonial land revenue settlements
- 2. Encroachment on tribal lands
- 3. 'Just rule' by British
- 4. Destruction of indigenous manufacturing

Which of the following above factors responsible for people's resentment and uprisings in British India?

- a) 1 only 2 only
- b) 1, 2 and 3 only
- c) 1, 2 and 4 only
- d) 1, 2, 3 and 4

ANS: C

Explanation: The major factors responsible for the people's resentment and uprisings against the Company rule are as follows.

- Colonial land revenue settlements, heavy burden of new taxes, eviction of peasants from their lands, and encroachments on tribal lands.
- Exploitation in rural society coupled with the growth of intermediary revenue collectors, tenants and moneylenders.





- Expansion of revenue administration over tribal lands leading to the loss of tribal people's hold over agricultural and forest land.
- Promotion of British manufactured goods, heavy duties on Indian industries, especially export duties, leading to devastation of Indian handloom and handicraft industries.
- Destruction of indigenous industry leading to migration of workers from industry to agriculture, increasing the pressure on land/agriculture.

Source: NCERT



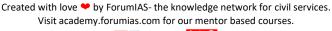
Q.1) SMILE Scheme, recently seen in news is launched by which of the following ministry?

- a) Ministry of women and child development
- b) Ministry of education
- c) Ministry of Social Justice and Empowerment
- d) Ministry of Science and technology

ANS: C

Explanation: About Support for Marginalised Individuals for Livelihood and Enterprise (SMILE) Scheme:

- The Union Minister for Social Justice and Empowerment has launched the SMILE Scheme.
- It is a Central Sector Scheme. Its aim is to provide welfare and rehabilitation to the Transgender community and the people engaged in the act of begging.
- It has two sub-schemes:





- Comprehensive Rehabilitation for Welfare of Transgender Persons that includes scholarships for transgender students, skill development, medical and housing facility (Garima Greh) among others;
- Comprehensive Rehabilitation of persons engaged in the act of Begging that includes provision of shelter homes, outreach initiatives etc.

Source: EPIC February 2022

Q.2) Consider the following statements about National Institute of Career Services (NICS):

- 1. It was set up under Ministry of Labour and Employment.
- 2. NICS has recently launched Pramarsh, an online counselling workshop with an aim to bridge the industry-academia gap.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About National Institute of Career Services (NICS):

- National Institute for Career Service (erstwhile Central Institute for Research and Training in Employment Service) was set up in 1964 under Directorate General of Employment (DGE), Ministry of Labour & Employment.
- Its aim is to be a National Centre of Excellence to provide enhanced employability through Training, Research & Capacity Building Programme in the area of Employment under National Employment Services.

About Pramarsh

NICS has launched Pramarsh, an online counselling workshop. The aim of Pramarsh is to bridge the industry-academia gap and spread awareness about various choices available to students under the National Education Policy (NEP) 2020.

Source: EPIC February 2022

Q.3) Consider the following statements about Vigyan Jyoti Scheme:

- 1. It aims to address the underrepresentation of women in different fields of Science Technology Engineering and Mathematics (STEM) in the country.
- 2. Navodaya Vidyalaya Samiti (NVS)is the implementation partner of Vigyan Jyoti.
- 3. The Vigyan Jyoti programme is being implemented in 100 schools situated in both rural and urban areas.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: A

Explanation: About Vigyan Jyoti Scheme:

- The Vigyan Jyoti programme is being implemented in 100 schools in the country and all the schools are situated in rural areas.
- The Nodal Ministry is Department of Science & Technology. Its aim is to address the underrepresentation of women in different fields of Science Technology Engineering and Mathematics (STEM) in the country.





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- The scheme envisages hand-holding and interventions from Class IX and till the PhD level to encourage girls to pursue a career in underrepresented areas of STEM.
- Navodaya Vidyalaya Samiti (NVS), an autonomous organization of the Ministry of Education, is the implementation partner of Vigyan Jyoti.

Source: EPIC January 2022

Q.4) Which of the following statements about SAMRIDH Initiative is not correct?

- a) The purpose of the initiative is to create and rapidly scale market-based health solutions.
- b) It aims to improve access to affordable and quality healthcare in Smart Cities.
- c) Atal Innovation Mission (AIM), NITI Aayog and USAID announced a new partnership under this initiative.
- d) SAMRIDH initiative has been launched in 2020.

ANS: B

Explanation: About SAMRIDH Initiative:

- Atal Innovation Mission (AIM), NITI Aayog and U.S. Agency for International Development (USAID) announced a new partnership under the Sustainable Access to Markets and Resources for Innovative Delivery of Healthcare (SAMRIDH) Initiative.
- SAMRIDH initiative has been launched in 2020. The purpose of the initiative is to create and rapidly scale market-based health solutions.
- The collaboration aims to improve access to affordable and quality healthcare for vulnerable populations in tier-2 and tier-3 cities, and rural and tribal regions.

Source: EPIC February 2022

Q.5) 'Operation AAHT', recently seen in news is related to which of the following?

- a) Evacuation of Indians from Ukraine
- b) Domestic violence
- c) Human trafficking
- d) Aid to Afghanistan

ANS: C

Explanation: About Operation AAHT:

- The Railway Protection Force (RPF) has launched 'Operation AAHT'. It has been launched to curb human trafficking.
- As part of the operation, special teams will be deployed on all long-distance trains/routes with focus on rescuing victims, particularly women and children, from the clutches of traffickers.
- Through Operation AAHT, the RPF could act as a bridge cutting across States to assist the local police in the mission to curb the menace.

Source: EPIC February 2022

Q.6) Consider the following statements about One District One Product Scheme:

1. It is an initiative of NITI Aayog.



2. It aims to identify one product per district based on the potential and strength of a district and national priorities.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About One District One Product Scheme:

- One District One Product (ODOP) is an initiative towards realizing the true potential of a district.
- Its aim is to identify one product per district based on the potential and strength of a district and national priorities.
- A cluster for that product will be developed in the district and market linkage will be provided for that. This will help convert each district of the country into an Export Hub by identifying products with export potential.
- It also aims to address bottlenecks in exporting products and support local manufacturers. It is an initiative of the Department for Promotion of Industry and Internal Trade (DPIIT).

Source: EPIC February 2022

Q.7) Which of the following institutions publishes e-Government Development Index (EGDI):

- a) World Bank
- b) UNDP
- c) UN DESA
- d) IMF

ANS: C

Explanation: About e-Government Development Index (EGDI):

- The United Nations Department of Economic and Social Affairs (UN DESA) has been publishing the EGDI and survey report since 2001.
- The Survey assesses the e-government development status of all UN Member States. The EGDI is the weighted average of 3 dimensions of e-Government:
 - The Scope and quality of online services (Online Service Index, OSI);
 - The Status of the development of telecommunication infrastructure (Telecommunication Infrastructure Index, TII);
 - The inherent Human Capital (Human Capital Index, HCI). India has been ranked 100th (out of 193) in 2020, up from 118th in 2014. India had achieved 96th rank in 2018.

Source: EPIC February 2022

Q.8) Consider the following statements about One Ocean Summit:

- 1. It is organised by Sweden, United Nations and World Bank.
- 2. The United Nations has declared the decade between 2021 and 2030 as the 'Decade of Ocean Science for Sustainable Development' to raise awareness and restore declining marine

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2



ANS: A

Explanation: About One Ocean Summit:

- The One Ocean summit is being organised by France in cooperation with the United Nations and the World Bank.
- The objective of the summit is to mobilise the international community to take tangible action towards preserving and supporting healthy and sustainable ocean ecosystems.
- The United Nations has declared the decade between 2021 and 2030 as the 'Decade of Ocean Science for Sustainable Development' to raise awareness and restore declining marine life.

Source: EPIC February 2022

Q.9) The scheme 'SVAMITVA' recently seen in news is related to which of the following?

- a) Creation of data base for manpower planning and management.
- b) Web portal for assistance to disabled persons.
- c) Digital mapping of Indian villages
- d) A new Early warning system for Cyclones.

ANS: C

Explanation: About SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas):

- SVAMITVA is an ongoing scheme launched by PM Modi in April 2021. The scheme plans to prepare digital maps of all of India's 6,00,000 villages. 3D maps will be created for 100 cities across India.
- The scheme uses drones to prepare a variety of maps useful in forest management, disaster management, electrical utilities, land records, water distribution, and property taxation.
- The updated guidelines have liberalized the approval mechanism of the scheme making it easier for the private companies to prepare maps, use drones and develop applications via location mapping.

Source: EPIC February 2022

Q.10) Consider the following statements regarding the National Safai Karamcharis Finance & Development Corporation (NSKFDC):

- 1. It is a government undertaking owned by both Central and state governments.
- 2. It is an apex corporation for the all round socio-economic upliftment of the Safai Karamcharis, Scavengers and their dependants throughout India.
- 3. It is the nodal agency for implementation of the Central Sector Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS).

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: C

Explanation: National Safai Karamcharis Finance & Development Corporation(NSKFDC):

- A wholly owned Govt. of India Undertaking under the Ministry of Social Justice & Empowerment (M/o SJ&E) was set up on 24th January 1997 as a Company "Not for Profit" under Section 25 of the Companies Act, 1956.
- NSKFDC is in operation since October, 1997, as an Apex Corporation for the all round socio-economic upliftment of the Safai Karamcharis, Scavengers and their dependants throughout India, through various loan and non-loan based schemes.





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- Apart from operating various loan and non-loan based schemes for the upliftment of the target group, NSKFDC is playing a vital role in elimination of manual scavenging - the worst surviving symbol of untouchability.
- NSKFDC has been designated as the Nodal Agency for implementation of the Central Sector Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS) under the aegis of the Ministry of Social Justice & Empowerment.

Source: ForumIAS factly



Science and Technology

Q.1) Consider the following statements about Exercise Paschim Lehar:

- 1. It is a joint maritime exercise conducted under the aegis of Western Naval Command.
- 2. It aims to enhance Inter-Service synergy among the Indian Navy, Indian Air Force (IAF) and Indian Army only.

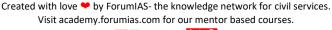
Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2 d) Neither 1 nor 2

ANS: A

Explanation: About Exercise Paschim Lehar:

- It is a joint maritime exercise conducted under the aegis of Western Naval Command. Its objective is to enhance Inter-Service synergy among the Indian Navy, Indian Air Force (IAF), Indian Army and Coast Guard.
- The exercise included the participation of ships and submarines of the Indian Navy, Aircrafts of IAF, various elements of Army and Patrol Vessels of Coast guard.





Q.2) India's first Graphene Innovation Centre would be set up at which of the following place?

- a) Thrissur, Kerala
- b) Chandigarh University, Mohali
- c) Hyderabad, Telangana
- d) Pune, Maharashtra

ANS: A

Explanation: About Graphene Innovation Centre in Thrissur, Kerala:

- The Government of Kerala has announced the country's first Graphene Innovation Centre.
- Graphene is a one-atom-thick layer of carbon atoms arranged in a hexagonal lattice. It is the thinnest, most electrically and thermally conductive material in the world.
- It is also flexible, transparent and incredibly strong. Graphene has widespread use in bio-medical applications (like targeted drug delivery, testing kits), composites and coatings, electronics, batteries, membranes to separate materials, ultra-sensitive sensors etc.

Source: EPIC February 2022

Q.3) Consider the following statements about EOS-04 Satellite:

- 1. It is a Radar Imaging Satellite.
- 2. EOS-04 is the fourth in the series of earth observation satellites.
- 3. All other EOS satellites in the series namely, EOS-01, EOS-02 and EOS-03 have been successfully placed in the orbit.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: A

Explanation: About EOS-04 Satellite:

- ISRO has launched the EOS-04 Satellite on board the PSLV-C52. EOS-04 is the fourth in the series of earth observation satellites.
- It is a Radar Imaging Satellite, weighs about 1710 kg and will be placed in a sunsynchronous polar orbit.
- It will provide high-quality images under all weather conditions for applications such as agriculture, forestry and plantations, soil moisture & hydrology, and flood mapping.
- EOS-02 is yet to be launched. It is a microsatellite to be flown on a new launch vehicle called SSLV (Small Satellite Launch Vehicle).
- At present, India has 53 operational satellites, of which 21 are earth observation and another 21 are communication-based. The other eight are navigation satellites and 3 are science satellites.



Q.4) Consider the following statements about m-WRAPR:

- 1. It is India's first indigenous bio-sample collection kit.
- 2. The kit helps to preserve genetic content in all types of biological samples including microbiomes, saliva, cells, tissues, blood, body fluids and fecal tubes.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About m-WRAPR:

- Azooka Labs, a start-up at the Indian Institute of Science (IISc) has launched mWRAPR
- It is India's first indigenous bio-sample collection kit. It can be used as a bio-sample collection kit and storage medium for samples destined for genomic sequencing labs, biobanks and research labs handling biological samples for molecular analysis.
- The kit helps to preserve genetic content in all types of biological samples including microbiomes, saliva, cells, tissues, blood, body fluids and fecal tubes.

Source: EPIC February 2022

Q.5) Consider the following statements about North East Centre for Technology Application and Reach (NECTAR):

- 1. It is an autonomous society set up under Ministry of Development of North Eastern region.
- 2. It is headquartered in Shillong.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About NECTAR:

- North East Centre for Technology Application and Reach (NECTAR) is an autonomous society set up under the Department of Science & Technology.
- The Centre looks at harnessing and leveraging niche frontier technologies available with Central Scientific Departments and Institutions for public and social good and to expand the benefits of technology for equitable and inclusive social and economic development of the North Eastern Region of our country.
- It is headquartered in Shillong.
- The NECTAR under the Saffron Bowl project has identified few locations in Arunachal Pradesh and Meghalaya for saffron cultivation.

Source: EPIC February 2022

Q.6) Which of the following statements about Small Satellite Launch Vehicle (SSLV) is/are correct?

1. It is an all-liquid three-stage vehicle with the capability to launch up to 500 kg satellite mass.



2. It has capability to launch satellite into geosynchronous orbit.

Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: About the Small Satellite Launch Vehicle (SSLV):

- It is an all-solid three-stage vehicle with the capability to launch up to 500 kg satellite mass into 500 km Low Earth Orbit (LEO).
- The demand for small satellites has emerged in recent years on account of the need for developing countries, private corporations, and universities for small satellites.
- Small satellites find ready application for various purposes such as for using formations of small satellites to gather data from multiple points, doing in-orbit inspection of larger satellites, conducting university related research, testing or qualifying new hardware before using it on a more expensive/sophisticated spacecraft etc.
- Until now, the small satellites have been launched using PSLV, Advantages of SSLV

The SSLV would help in:

- Reduced turn-around time;
- Launch on demand:
- Cost optimization for realization and operation;
- Flexibility in accommodating multiple satellites;
- Minimum launch infrastructure requirements.
- The development and manufacture of the SSLV are expected to create greater synergy between the space sector and private Indian industries which is a key aim of the Department of Space.

Source: EPIC February 2022

Q.7) Which of the following institutions publishes Global Cybersecurity Outlook report?

- a) World Economic Forum
- b) World Bank
- c) UNDP
- d) IMF

ANS: A

Explanation: About Global Cybersecurity Outlook report:

- The Global Cybersecurity Outlook 2022 Report has been released by the World Economic Forum.
- The report gives insights on near-term future cybersecurity challenges and develops actionable solutions to address them;
- The report also highlights measures that need to be taken to enhance cyber resilience within organisations and the wider ecosystem.

Key Findings of the Global Cybersecurity Outlook 2022:

The accelerating pace of digitalisation fuelled by the COVID-19 pandemic has led to:

- 151% surge in global ransomware attacks in 2021;
- An average of 270 cyberattacks per organisation in 2021, a 31% increase over 2020;
- Cyber security leaders around the globe have listed ransomware, identity theft and critical infrastructure failure among their top personal cyber risk concerns;
- Cyber incidents are becoming costly and damaging, sometimes even paralysing critical services and infrastructure;



• Companies need 280 days on average to identify and respond to a cyberattack. To put this into perspective, an incident that occurs on January 1, may not be fully contained until October 8.

Source: EPIC February 2022

Q.8) Consider the following statements about Negative Ions:

- 1. Negative ions are made when sunlight, radiation, air, or water break down oxygen.
- 2. These ions have an impact on pollutants by making them negatively charged and get them collected on surfaces.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Negative Ions:

- An ion is an atom, or a molecule, which has gained or lost one or more electrons;
- Negative ions are made when sunlight, radiation, air, or water break down oxygen.
- It is believed that negative ions create positive vibes and uplift the mood. These ions also have an impact on pollutants by making them negatively charged and get them collected on surfaces.

About Negative Ion Technology

- Negative ion technology embeds negative ions in personal products and is currently being advertised as a means to maintain health, balance energy, and improve wellbeing;
- This technology is used in certain silicone wristbands, quantum or scalar-energy pendants, sleep masks, jewellery among others;
- The minerals that produce these negative ions often include naturally occurring radioactive substances such as uranium and thorium.

Source: EPIC February 2022

Q.9) Consider the following statements about Hydrogen-enriched Compressed Natural Gas:

- 1. It can be used in place of gasoline; diesel fuel/LPG and its combustion produce fewer undesirable gases in comparison to normal automobile fuel.
- 2. HCNG is easier and safer to use than hydrogen as it contains very low energy content from hydrogen.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

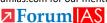
ANS: D

Explanation: About HCNG:

- HCNG stands for Hydrogen-enriched Compressed Natural Gas. HCNG is produced by blending hydrogen with CNG;
- It can be used in place of gasoline; diesel fuel/LPG and its combustion produce fewer undesirable gases in comparison to normal automobile fuel.

Benefits of HCNG:

• It emits 70% less carbon dioxide;



- It reduces total hydrocarbons emissions by around 15%;
- Increases fuel efficiency by 3-4%;
- The power output is better than CNG;
- HCNG is easier and safer to use than hydrogen as it contains very low energy content from hydrogen, i.e., up to 30% by volume.

Concerns associated with HCNG

- The physical blending of CNG and hydrogen involves a series of energy-intensive steps that would make H-CNG more expensive than CNG;
- HCNG use would require a change in the structural aspects of the engine.

Source: EPIC February 2022

Q.10) Consider the following statements regarding the Aerosols:

- 1. Their scattering of sunlight can reduce visibility (haze) and redden sunrises and sunsets.
- 2. Its concentrations in the atmosphere rise and fall with climate.

Which of the statements given above is/are correct?

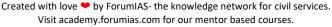
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About Aerosols:

- Aerosols are minute particles suspended in the atmosphere. When these particles are sufficiently large, we notice their presence as they scatter and absorb sunlight.
- Their scattering of sunlight can reduce visibility (haze) and redden sunrises and sunsets. Aerosols interact both directly and indirectly with the Earth's radiation budget and climate.
- As a direct effect, the aerosols scatter sunlight directly back into space.
- As an indirect effect, aerosols in the lower atmosphere can modify the size of cloud particles, changing how the clouds reflect and absorb sunlight, thereby affecting the Earth's energy budget
- Aerosols come from both natural and human sources—and sometimes both at once.
- Dust, for example, is scoured from deserts, the dried-out edges of rivers, dry lakebeds, and more.
- Its concentrations in the atmosphere rise and fall with climate; in cold, dry, periods in the planet's history like the last ice age, more dust filled the atmosphere than during warmer stretches of Earth's history.

Source: ForumIAS





Location/IR/Geography

Q.1) Pandrethan temple, an 8th Century temple dedicated to lord Shiva, recently seen in news, is located at which of the following place?

- a) Kashmir
- b) Mysuru
- c) Hampi
- d) Indonesia

ANS: A

Explanation: AboutPandrethan temple

- Pandrethan temple is an 8th Century temple built by Meru, a minister of King Partha, ruler of Kashmir.
- The temple is dedicated to Lord Shiva and is situated near the river Jhelum.
- It is believed that a great fire destroyed the city of Pandrethan in 960 CE.
- Pandrethan temple is the only surviving structure in the city.
- It hosts several excavated sculptures dating back to the 2nd century, they include:
 - Two large monolithic rock Shiva lingams
 - Seven Gandhara-style sculptures
 - Huge rock carving of the feet of a monolithic statue.

Source: The Hindu

Q.2) Matua Island, recently seen in news is located at which of the following place?

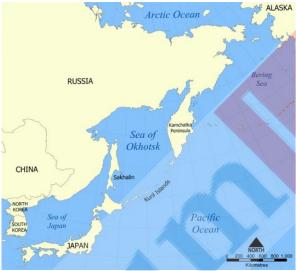
- a) Mediterranean Sea
- b) Kuril Island chain
- c) Aleutian Islands
- d) Barents Sea

ANS: B



Explanation: About Matua Island

- Matua is an uninhabited volcanic island located in the Kuril Islands chain in the Sea of Okhotsk.
- It is in the northwest Pacific Ocean.
- Also, the Matua Island is 16 km from Golovnin Strait.
- These islands are located on the Ring of Fire.
- It has a strato volcano. The strato volcano is also called composite volcano.
- It is built up by many layers of hard lava.
- They are characterised by a summit crater and periodic intervals of explosive eruptions.
- Recently the Russian Military deployed its defence missile systems called the Bastion systems to the Matua Island.



What is the issue around the island?

- The chain of islands, Kuril Islands, is claimed by Japan as well.
- Japan claims four of the islands in the chain and calls them Northern Territories.
- These Islands were taken by the Soviet Union in the final days of World War II.
- During World War II, Japan had installed a military base in the island.
- After the disintegration of Soviet Union in 1991, the soviet military base established earlier was closed due to funding shortages.

Source: The Hindu

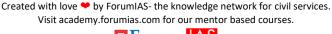
Q.3) Which of the following place is known as 'Saffron Bowl of Kashmir'?

- a) Anantnag
- b) Pulwama
- c) Pampore
- d) Baramula

ANS: C

Explanation: About Saffron Bowl Project:

- It has been launched to expand the cultivation of saffron from Kashmir to the North-East India.
- Pampore in J&K is called Saffron Bowl of Kashmir and Pampore Saffron Heritage is one of the Globally Important Agricultural Heritage systems (GIAHS) recognised sites in India.
- Saffron is used to make saffron spice. It is a very precious and costly product. It is cultivated and harvested in the Karewa (highlands) of Jammu and Kashmir.





Q.4) Medaram Jatara also known as Sammakka Saralamma Jatara is a tribal festival held in which of the following states?

- a) Kerala
- b) Manipur
- c) Telangana
- d) Odisha

ANS: C

Explanation: About Medaram Jatara:

- Medaram Jatara also known as Sammakka Saralamma Jatara is a tribal festival held in the state of Telangana.
- The festival is conducted in honour of the Goddesses Sammakka and Saralamma. It is celebrated once in two years in the month of 'Magha' (February) on the full moon day.
- It is the second-largest fair in India, after the Kumbh Mela. It is organised by Koya Tribe in collaboration with the Tribal Welfare Department, Government of Telangana.

Source: EPIC February 2022

Q.5) Which of the following country is not one among the 13 Tiger Range Countries?

- a) China
- b) Pakistan
- c) Vietnam
- d) Thailand

ANS: B

Explanation: About Tiger Range Countries:

- Tiger Range Countries are the countries where the tigers are still found in the wild. At present there are 13 Tiger Range Countries.
- These countries are Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Myanmar, Malaysia, Nepal, Russia, Thailand, and Vietnam.

Source: EPIC February 2022

Q.6) Arouca Geopark, in which the world's longest pedestrian suspension bridge is built, is located in which of the following countries?

- a) China
- b) Japan
- c) Portugal
- d) USA

ANS: C

Explanation: About Arouca Geopark:

- The 516 Arouca in Portugal beat the Charles Kuonen Suspension Bridge by 71 feet to be the longest pedestrian suspension bridge in the world.
- The latest attraction in the UNESCO-recognised Arouca Geopark, the 574 feet high bridge commands views of the surrounding gorge and the Aguieiras Waterfall.

Source: Indian Express

Q.7) Nusantara, the new Capital of Indonesia is located on which of the following island?

- a) Java
- b) Sumatra



- c) Sulawesi
- d) Borneo

ANS: D

Explanation: About Nusantara, new Capital of Indonesia:

- Indonesian parliament has approved a Bill to relocate the Nation's capital from Jakarta to Kalimantan area on Borneo Island.
- The new centre will be called 'Nusantara'. It is a Javanese name for the Indonesian archipelago chosen by the President.

• The current capital Jakarta suffers from issues like chronic congestion, floods and air pollution.



Source: EPIC February 2022

Q.8) Sela Tunnel Project, recently seen in news is located in which of the following state/UT?

- a) Jammu and Kashmir
- b) Arunachal Pradesh
- c) Ladakh
- d) Himachal Pradesh

ANS: B

Explanation: About Sela Tunnel Project:

- Sela Tunnel Project is located in the West Kameng District of Arunachal Pradesh. The tunnel is a part of the Balipara-Chariduar-Tawang (BCT) road, one of the key strategic projects near the Chinese border.
- The tunnel will be the longest twin-lane tunnel above 13,000 feet in the world and will provide all-weather connectivity to Tawang.
- The project will also allow faster deployment of weapons and soldiers to forward areas in the Tawang sector.





Source: EPIC February 2022

Q.9) COMPETES Act, 2022 with an aim to open up new vistas for talented individuals from across the world with a new start-up visa has been passed by which of the following country?

- a) USA
- b) Germany
- c) China
- d) Russia

ANS: A

Explanation: The United State House of Representative passed the America COMPETES Act 2022.

What is the COMPETES Act, 2022?

• The main aim of the America Creating Opportunities for Manufacturing, Pre-Eminence in Technology, and Economic Strength (COMPETES) Act, 2022 are: (a) To open up new vistas for talented individuals from across the world with a new start-up visa; (b) To make the supply chains stronger and reinvigorate the innovation engine of the country's economy to outcompete China and the rest of the world for decades to come.

Key provisions of the COMPETES Act, 2022

- It allocates grants and loans to encourage semiconductor production in the US and to improve supply chain resilience and manufacturing;
- It proposes funding to address social and economic inequality and immigration e.g., it offers an exemption for STEM (Science, Technology, Engineering or Mathematics) PhDs from the green card limit;
- It has allocated USD 600 million a year to build manufacturing facilities to make the United States less dependent on solar components manufactured in China;
- It proposes a new category of visa called the "W" classification. This visa will be for non-immigrant entrepreneurs with an ownership interest in a start-up entity, essential employees of a start-up entity and their spouses and children

Source: EPIC February 2022

Q.10) Consider the following statements about the Genocide Convention:



- 1. The UN General assembly resolution 96(I) against genocide was co-sponsored by South Africa and India.
- 2. Genocide has been criminalized under Indian domestic laws.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: About the Genocide Convention:

- The word Genocide is credited to Raphael Lemkin who also campaigned for its international treaty.
- The UN General Assembly resolution 96(I) against genocide was co-sponsored by Cuba and India.
- This resulted in a convention against genocide in 1948 which came into effect in 1951 with more than 150 states party to the convention.

Its provisions include:

- Article I: Prevent and punish genocide;
- Article V: Enact legislation to give effect to the convention, effective penalties for those guilty of the crime;
- Article VI: Try those charged with genocide in a competent tribunal.
- Status of the Genocide Convention in India
- India has not enacted any legislation in accordance with Article VI of the Genocide Convention
- Nor has genocide been criminalized under any domestic law.





Polity

Q.1) Consider the following statements about Haryana State Employment of Local Candidates Act of 2020:

- 1. It seeks to provide 75% job reservation for local people in public sector jobs.
- 2. Haryana is the first state to have such law.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: About the Law:

- The Haryana State Employment of Local Candidates Act of 2020 seeks to provide 75% job reservation for local people in private-sector jobs.
- The reservation is ensured on jobs having salaries less than INR 30,000/month (revised from INR 50,000/month earlier). The law is applicable to private companies, societies, trusts, and partnership firms etc. located in the State.
- The Act would not be a permanent legislation but remain in force for 10 years of being enacted. The companies found to be violating the Act are liable to a fine between ₹10,000 and ₹2 Lakh.
- It will be applicable to the new job openings only and won't affect the outsiders already working on the affected jobs.
- An exemption can be claimed by employers in the situation where an adequate number of local candidates with the desired skills, qualifications, and proficiency are not available.
- MP, Jharkhand and Andhra Pradesh have also made similar laws earlier that reserved 70-75% of the jobs for locals.

Source: EPIC February 2022

Q.2) Which of the following statement about National Commission for Safai Karamcharis is not correct?

- a) National Commission for Safai Karamcharis (NCSK) was constituted in 1994.
- b) NCSK is a constitutional body.



- c) It make recommendations to the Government regarding specific programmes for welfare of Safai Karamcharis.
- d) It monitors the implementation of the provisions of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.

ANS: B

Explanation: About the National Commission for Safai Karamcharis (NCSK):

- National Commission for Safai Karamcharis (NCSK) was constituted in 1994 as a statutory body under the provisions of the NCSK Act. 1993.
- It was initially set up for three years (till 1997). Later the validity of the Act was extended up to 2002 and then up to 2004. The NCSK Act ceased to have effect from 2004.
- Since then, the tenure of the NCSK has been extended as a non-statutory body from time to time through resolutions. The tenure of the present Commission was up to 31st March 2022. It has now been extended to March 2025.

Mandate of the National Commission for Safai Karamcharis

- Make recommendations to the Government regarding specific programmes for welfare of Safai Karamcharis;
- Study and evaluate the existing welfare programmes for Safai Karamcharis;
- Investigate cases of specific grievance of Safai Karamcharis;
- To study and monitor the working conditions of Safai Karamcharis;
- Make reports to the Central or State Governments on any matter concerning Safai Karamcharis.
- According to the provisions of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, the NCSK has been assigned the following work:
 - To monitor the implementation of the Act;
 - Tender advice for its effective implementation to the Centre and State Governments, and enquire into complaints regarding contravention/nonimplementation of the provisions of the Act.

Source: EPIC February 2022

Q.3) Democracy Index is released by which of the following institutions?

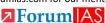
- a) Economist Intelligence Unit
- b) Amnesty international
- c) UN DESA
- d) World Bank

ANS: A

Explanation: About the Democracy Index:

- The Economist Intelligence Unit has released the Democracy Index, 2021.
- The Democracy Index was started in 2006. It provides a snapshot of the state of democracy worldwide in 165 independent states and two territories.
- The index is based on 60 indicators grouped into five categories:
 - Electoral process and pluralism;
 - Civil liberties:
 - Functioning of government:
 - Political participation;
 - Political culture.
- Each country is provided with a score of 0 to 10 based on the above indicators.
- Based on their scores, each country is then classified into any one of the four types of regime:
 - Full democracy;
 - Flawed democracy;
 - Hybrid regime;
 - Authoritarian regime.

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- Key Findings of the Democracy Index Norway has topped the index followed by New Zealand. It has been classified as a full democracy.
- India is ranked 46th on the 2021 index with an overall score of 6.91. It has been classified as a flawed democracy. In 2020, India was ranked 53rd in the index.
- Less than half (45.7%) of the world's population now live in a democracy of some sort, a significant decline from 2020 (49.4%). Only 6.4% reside in a "full democracy".
- More than a third of the world's population (37.1%) live under authoritarian rule, with a large share being in China.

About Economist Intelligence Unit (EIU):

The Economist Intelligence Unit (EIU) was created in 1946. It is the research and analysis division of The Economist Group and the world leader in global business intelligence.

Source: EPIC February 2022

Q.4) Consider the following statements about 'New India Literacy Programme':

- 1. The scheme will be implemented through volunteerism through offline mode.
- 2. It is a Centrally Sponsored Scheme.
- 3. The scheme will cover non-literates of the age of 15 years and above in all states/UTs.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: B

Explanation: About the New India Literacy Programme (NILP):

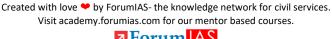
- The Ministry of Education in convergence with various Ministries and Departments will implement the scheme.
- The scheme will be implemented through volunteerism through online mode.
- It is a Centrally Sponsored Scheme.

Objective: Imparting Skills

- The objective of the scheme is to impart not only foundational literacy and numeracy but also to cover other components which are necessary for a citizen of the 21st century such as -Critical life skills (financial literacy, digital literacy, commercial skills, health care and awareness, child care and education, and family welfare)
- Vocational skills (with a view towards obtaining local employment);
- Basic education (including preparatory, middle, and secondary stage equivalency) and-Continuing education (including engaging holistic adult education courses in arts, sciences, etc and recreation, as well as other topics of interest or use to local learners).

Targets

- The scheme will cover non-literates of the age of 15 years and above in all states/UTs.
- The target for Foundational Literacy and Numeracy for FYs 2022-27 is 5 crore learners at 1 crore learners per year by using "Online Teaching, Learning and Assessment System (OTLAS)."
- The focus will be on all aspirational districts, districts with literacy rates less than the National/State average, etc.



Q.5) Consider the following statements about Scheme for Economic Empowerment of DNTs (SEED):

- 1. It aims to economically empower De-notified, Nomadic and Semi Nomadic Communities.
- 2. It is launched by Ministry of tribal affairs.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: Need for SEED Scheme:

- The DNTs, NTs, SNTs are one of the most deprived and economically weaker communities in India.
- The policies of the colonial government affected lives and livelihood adversely with the enactment of the Criminal Tribes Act, 1871 during British rule wherein they were branded as criminals.
- This has led to the forcible alienation from their traditional occupations and habitations. They remained hunter-gatherers and pastoral/peripatetic. After the Independence, they have not benefitted much from the planned development of over seven decades.
- They were deprived of state support like the SCs/STs.
- Major Government Initiatives to mainstream DNTs, NTs, SNTs Various efforts were undertaken for bringing these communities into the mainstream. Accordingly, the first commission was set up in October 2003. The Renke Commission was set up in 2008.
- In 2015, National Commission was constituted under the chairmanship of Bhiku Ramji Idate.
- This commission was tasked to identify and proper listing of these communities in different states, to evaluate the progress of development of these communities in the states so that a systematic approach can be developed for the development of these communities.
- Based on the recommendation of this commission, the Government has set up the Development and Welfare Board for DNTs, SNTs &NTs (DWBDNCs) in 2019.
- The Government also decided to create an umbrella scheme for empowerment of these communities and accordingly, the Scheme for Economic Empowerment of DNTs, SNTs &NTs (SEED) has been formulated and launched.

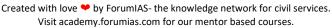
About the SEED Scheme:

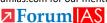
- The Minister of Social Justice and Empowerment launched the Scheme for Economic Empowerment of DNTs (SEED) for the welfare of De-notified, Nomadic and Semi Nomadic Communities.
- The Aim is to economically empower De-notified, Nomadic and Semi Nomadic Communities.
- The scheme will be for a period of 5 years starting Financial Year 2021-22 to 2025-26. The scheme has been formulated for families having income from all sources of Rs.2.50 lakh or less per annum and not availing any such benefits from similar Scheme of Centre Government or the State Government.

Source: EPIC February 2022

Q.6) With reference to the Mahatma Gandhi National Rural Employment Guarantee Act, which of the following statements is/are correct?

- 1. It Provide 100 days of guaranteed wage employment to rural unskilled labour.
- 2. Mandatory Social Audit for MGNREGA works.
- 3. 50:50 division of scheme allocation between wage and material.





Select the correct answer using the codes given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

ANS: B

Explanation: The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has the following objectives:

- Provide 100 days of guaranteed wage employment to rural unskilled labour
- Increase economic security
- Decrease migration of labour from rural to urban areas
- Social Audit of MGNREGA works is mandatory.
- At least one-third beneficiaries shall be women.
- Right to get unemployment allowance in case employment is not provided within fifteen days of submitting the application or from the date when work is sought.
- Unemployment allowance is borne by the state governments.
- A 60:40 wage and material ratio has to be maintained. No contractors and machinery are allowed.

Source: Governance in India by Laxmikanth

Q.7) The Corruption Perception Index is released by which of the following?

- a) Tax Justice Network
- b) World Bank
- c) Transparency International
- d) World Economic Forum

ANS: C

Explanation: The Corruption Perceptions Index is released by the Transparency International annually.

- The latest edition is the Corruption Perceptions Index 2019 which was released in January 2020.
- The index includes the ranks of the 180 countries or territories based on the perceived levels of public sector corruption.

Source: ForumIAS

Q.8) Consider the following statements regarding the "Lok adalat":

- 1. It has been given the status of a civil court.
- 2. Its awards are challenged before any court.

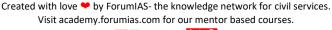
Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: The Legal Services Authorities Act (1987):

- It has established a nation-wide network to provide free and competent legal aid to the poor and to organize lok adalat for promoting equal justice.
- Lok adalat is a statutory forum for conciliatory settlement of legal disputes.
- It has been given the status of a civil court.





• Its awards are enforceable, binding on the parties and final as no appeal lies before any court against them.

Source: ForumIAS

Q.9) Which Constitutional Amendment reduced the age of voter from 21 to 18?

- a) 35th Constitutional Amendment
- b) 42nd Constitutional Amendment
- c) 48th Constitutional Amendment
- d) 61st Constitutional Amendment

ANS: D

Explanation: The election is based on the principle of universal adult franchise.

- Every Indian citizen who is above 18 years of age and who is not disqualified under the provisions of the Constitution or any law is eligible to vote at such election.
- The voting age was reduced from 21 to 18 years by the 61st Constitutional Amendment Act, 1988.

Source: Laxmikanth

Q.10) The Punchhi Commission report was related to which among the following?

- a) Centre-State Relations
- b) Fiscal Federalism
- c) Electoral Reforms
- d) Creation of new states

ANS: A

Explanation:

- The Second commission on Centre-State Relations was set-up by the Government of India in April 2007 under the Chairmanship of Madan Mohan Punchhi, former Chief Justice of India.
- It was required to look into the issues of Centre-State relations keeping in view the sea-changes that have taken place in the polity and economy of India since the Sarkaria Commission had last looked at the issue of Centre-State relations over two decades ago.

Source: Laxmikanth





Economy

Q.1) Consider the following statements about Vande Bharat Trains:

- 1. They are self-propelled trains that do not require an engine.
- 2. These are semi-high speed train.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About the Vande Bharat Trains:

- Vande Bharat is a semi-high speed train. Currently, two Vande Bharat trains are in operation, Delhi-Varanasi and Delhi-Katra;
- They are self-propelled trains that do not require an engine. This feature is called a distributed traction power system, which is increasingly becoming the norm the world over for passenger operations. Distributed power gives the train higher acceleration and deceleration compared to loco-hauled trains, which take a much longer time to reach top speed or to gradually come to a halt.

Key Features of Vande Bharat Trains

• The trains have fully sealed gangways for a dust-free environment, modular biovacuum toilets, automatic entry/exit doors with sliding footsteps, diffused LED lighting, and sensor-based interconnecting doors in each coach.

Source: EPIC February 2022

Q.2) Consider the following statements about Udyam Registration:

- 1. It is a registration portal for MSME.
- 2. The registration on this portal is necessary for any MSME that wants to avail concessions or benefits from the Central and State governments.

Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: About Udyam Registration:

• It was launched in July 2020. It is a registration portal for MSMEs.

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- This portal is more streamlined than the previous Udyog Aadhaar Memorandum. The portal is also fully integrated with Income Tax and GST IN (Goods and Services Tax Identification Number) systems.
- Upon registration on this portal, an enterprise will be assigned a permanent identification number to be known as 'Udyam Registration Number'.
- The registration on this portal is necessary for any MSME (regardless of the social category of ownership) that wants to avail concessions or benefits from the Central and State governments and want to get covered under schemes of the governments, including priority sector lending of banks.

Source: EPIC February 2022

Q.3) Global Economic Prospect Report is published by which of the following?

- a) World Bank
- b) IMF
- c) UNDP
- d) Both (a) and (c)

ANS: A

Explanation:

The World Bank has published the Global Economic Prospect Report. The report highlights that the results of the COVID-19 Pandemic are far from over.

Findings of the Report

- The report forecasts that that global economic growth will slow to 4.1% in 2022, from 5.5% in 2021.
- This is because:
 - o the Governments are losing the capacity to provide further fiscal support due to rising debt;
 - Supply chain bottlenecks that impede the flow of goods and services, and the resulting inflation will add to existing economic miseries. Several economies are at high risk of debt distress and energy prices are expected to surge further.
- Economies like Argentina (10%) and India (8.3%) will have high growth rate but that is due to base year effect as most economies contracted during 2020-21.
- Usually, emerging market and developing economies (EMDEs), helped by their lower base, grow faster than advanced economies. But, they will perform poorer than advanced economies in 2023.
- This is because EMDEs have limited policy space to provide additional support.

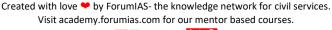
Source: EPIC February 2022

Q.4) Which of the following statements about Society for Worldwide Interbank Financial Telecommunications (SWIFT) is/are correct?

- 1. SWIFT is owned and controlled by its shareholders (financial institutions).
- 2. SWIFT is only a platform that sends messages and does not hold any securities or money. Select the correct answer using the codes given below:
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: About SWIFT:





- SWIFT is a messaging network used by banks and financial institutions globally for quick and faultless exchange of information pertaining to financial transactions;
- The network connects more than 11,000 banking and securities organizations in over 200 countries and territories;
- It is headquartered in Belgium;
- Each participant on the platform is assigned a unique 8-digit SWIFT code or a Bank Identification Code (BIC) which is essential for any inter-bank transfer;
- SWIFT is only a platform that sends messages and does not hold any securities or money. It enables standardized and reliable communication to facilitate the transaction.

Governance of SWIFT

- SWIFT is owned and controlled by its shareholders (financial institutions) representing approximately 3,500 firms from across the world;
- SWIFT is overseen by the G-10 Central Banks which includes Belgium, Canada, France, Germany, Italy, Japan, The Netherlands, United Kingdom, United States, Switzerland, and Sweden as well as the European Central Bank (ECB), with its lead overseer being the National Bank of Belgium;
- In 2012, this framework was reviewed, and the SWIFT Oversight Forum was established in which the G-10 central banks are joined by the Central Banks of India, Australia, Russia, South Korea, Saudi Arabia, Singapore, South Africa, the Republic of Turkey, and the People's Republic of China.

Source: EPIC February 2022

Q.5) Which of the following statement about SWIFT is not correct?

- a) SWIFT is a messaging network used by banks and financial institutions globally for quick and faultless exchange of information pertaining to financial transaction.
- b) Each participant on the platform is assigned a unique 12-digit SWIFT code.
- c) It is headquartered in Belgium.
- d) It enables standardized and reliable communication to facilitate the transaction.

ANS: B

Explanation: About SWIFT:

- SWIFT is a messaging network used by banks and financial institutions globally for quick and faultless exchange of information pertaining to financial transactions;
- The network connects more than 11,000 banking and securities organizations in over 200 countries and territories;
- It is headquartered in Belgium;
- Each participant on the platform is assigned a unique 8-digit SWIFT code or a Bank Identification Code (BIC) which is essential for any inter-bank transfer;
- SWIFT is only a platform that sends messages and does not hold any securities or money. It enables standardized and reliable communication to facilitate the transaction.

Source: EPIC February 2022

Q.6) Consider the following countries:

- 1. India
- 2. Turkey
- 3. China
- 4. Russia

Which of the above countries have created alternative to the SWIFT?

- a) 1 and 4 only
- b) 3 and 4 only
- c) 2, 3 and 4 only



d) 2 and 3 only

ANS: B

Explanation: About Alternatives to SWIFT:

- China launched China's Cross-Border International Payment Systems (CIPS) in 2019.
- In 2014, during the time when Russia annexed Crimea and was threatened of SWIFT sanctions, it launched a messaging system, the System for Transfer of Financial Messages (SPFS).
- Both the countries are in advanced stages of linking the two systems and various countries like Turkey and India are willing to join the system.

Source: EPIC February 2022

Q.7) Consider the following statements about India-UAE Comprehensive Economic Partnership Agreement (CEPA):

- 1. The CEPA is expected to increase the bilateral trade between the two countries from the present level of USD 60 Bn to USD 100 Bn in the next five years.
- 2. This trade deal comes with no strict rules of origin conditions.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation:

India and UAE signed a Joint Vision Statement on 'Advancing Comprehensive Strategic Partnership' and Comprehensive Economic Partnership Agreement (CEPA) during a virtual summit.

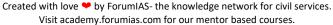
About the Trade Agreement

- The agreement is expected to provide significant benefits to Indian and UAE businesses, enhance market access and reduce tariffs.
- The shared objective of the agreement is to promote new trade, investment and innovation in diverse sectors, including economy, energy, climate action, emerging technologies, skills and education, food security, healthcare, defense and security.
- The CEPA is expected to increase the bilateral trade between the two countries from the present level of USD 60 Bn to USD 100 Bn in the next five years.
- The agreements are important from the point of view of employment as it is estimated that about 10 Lakh jobs shall be generated across multiple labour-intensive sectors.
- It shall help Indian exporters get access to West Asian countries and Africa through UAE. This agreement shall also prove helpful for the Indian pharmaceutical companies in getting regulatory approval, registration and market authorization for their medicines in countries like UK and USA.
- This trade deal comes with strict rules of origin conditions. To avoid the dumping of products of a third country in India, 40% of the value addition on the products exported to India shall be done in UAE.

Source: EPIC February 2022

Q.8) World Sustainable Development Summit (WSDS) is organised annually by which of the following institutions?

- a) UNDP
- b) UN





- c) The Energy and Resources Institute (TERI)
- d) International Institute for Sustainable Development

ANS: C

Explanation: World Sustainable Development Summit (WSDS):

- It is an annual event organized by The Energy and Resources Institute (TERI) since 2001.
- The summit was earlier known as Delhi Sustainable Development Summit. Its aim is to bring together a wide number of participants in the fight against climate change.
- Participants include governments, business leaders, academicians, climate scientists, youth, and civil society.

Source: EPIC February 2022

Q.9) Which of the following statement about Swachhta Start-Up Challenge is/are correct?

- 1. Its aim is to provide an impetus to innovative start-ups to drive transformation in the sanitation and waste management sector.
- 2. It is launched by Ministry of commerce and industry under its Start-Up India initiative.

Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: Swachhta Start-up Challenge:

- The Ministry of Housing & Urban Affairs (MoHUA) in partnership with the Department of Promotion of Industry and Internal Trade (DPIIT) and Agence Française de Développement (AFD) has launched the Swachhta Start-Up Challenge.
- Its aim is to provide an impetus to innovative start-ups to drive transformation in the sanitation and waste management sector. The challenge is open across 4 thematic areas:
 - o Social inclusion;
 - o Zero dump (Solid Waste Management);
 - o Plastic waste management;
 - o Transparency through digital enablement.

Source: EPIC February 2022

Q.10) Consider the following statements about the National Ropeways Development Programme:

- 1. It aims to develop ropeways in hilly areas of the country in a Public-Private Partnership (PPP) mode.
- 2. The programme is being presently started in North-eastern region only.

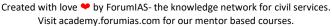
Which of the statements given above is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: About the National Ropeways Development Programme

- The Ministry of Road Transport and Highways (MORTH) will be the nodal ministry.
- The aim of the programme is to develop ropeways in hilly areas of the country in a Public-Private Partnership (PPP) mode.





- Around 8 ropeway projects for a length of 60 km would be awarded in 2022-23.
- The programme will also cover congested urban areas, where conventional mass transit systems are not feasible.
- The programme is being presently started in regions like Uttarakhand, Himachal Pradesh, Manipur, Jammu & Kashmir and the other North-Eastern states.

Source: EPIC February 2022

Environment

Q.1) Climate Hazards and Vulnerability Atlas of India has been released by which of the following?

- a) ISRO
- b) NITI Aayog
- c) IMD
- d) NDMA

ANS: C

Explanation: About the Atlas:

- The Atlas has been developed by the scientists at the Climate Research and Services (CRS) office of the India Meteorological Department (IMD), Pune. The atlas has used the Geographic Information System (GIS) tools and provides district maps on hazard events and vulnerability.
- The atlas will have two uses:
 - It will act as a reference for impact-based warnings that IMD issue for various regions;
 - o It can be used to plan climate-resilient infrastructure.

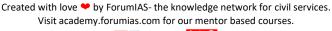
Key findings of the Atlas

- Most Impacted by Cyclones: West Bengal's South 24 Parganas district is most frequently impacted by cyclones among Indian districts. The return period of cyclonic storms in the district was 1.67 years on a scale of 1.5 to 60 years. Shorter return periods indicate more frequent cyclones.
- Cyclone Vulnerability: Purba Medinipur in West Bengal had the highest cyclone vulnerability in the country for cyclones of all intensities.
- Baleshwar in Orissa topped the list in terms of vulnerability to severe cyclonic storms. South 24 Parganas was the second-most vulnerable to all cyclones, and ranked third in terms of severe cyclonic storms.
- Other key Findings: Around 4% of the districts and 7% of the population in India are highly vulnerable to cyclones. Most of the coastal districts of the East Coast are highly vulnerable to cyclones.

Source: EPIC February 2022

Q.2) Consider the following statements about 'Fly Ash Management and Utilisation Mission':

- 1. The Goal of the Mission would be to coordinate and monitor issues relating to the handling and disposal of fly ash.
- 2. The mission is to be jointly headed by the Secretaries of the Union Ministry of Environment, Forest & Climate Change (MoEFCC) and Union Ministry of Coal and Power.
- 3. The secretary of Ministry of Coal and Power will be the nodal agency for coordination and compliance.





Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

ANS: A

Explanation: About Fly Ash:

- Fly ash is an unwanted unburnt residue of coal combustion in a coal thermal power
- It is emitted along with flue gases during the burning of coal in a furnace and collected using electrostatic precipitators.
- It is then converted into wet slurry and transported to scientifically designed ash ponds. However, the gross under-utilisation of this by-product over the years has led to the accumulation of 1,670 million tonnes of fly ash.

NGT Order to overcome the underutilisation of Fly Ash:

- The National Green Tribunal (NGT) has directed the constitution of a Fly Ash Management and Utilisation Mission'.
- The Goal of the Mission would be to coordinate and monitor issues relating to the handling and disposal of fly ash and to make the roadmaps and progress in fly ash utilisation available for all thermal power plants and their clusters.
- The mission is to be jointly headed by the Secretaries of the Union Ministry of Environment, Forest & Climate Change (MoEFCC) and Union Ministry of Coal and
- Chief Secretaries of concerned states will also be on board.
- The secretary of MoEFCC will be the nodal agency for coordination and compliance.

Source: EPIC February 2022

Q.3) Which of the following statement about Eco-Sensitive Zones is/are correct?

- 1. Eco-Sensitive Zones (ESZ) is areas in India notified by the Ministry of Environment, Forests and Climate Change (MoEFCC).
- 2. Environment Protection Act, 1986 mentions about the word "Eco-Sensitive Zones".

Select the correct answer using the codes given below:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

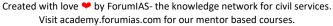
Explanation: Eco-Sensitive Zones:

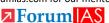
- Eco-Sensitive Zones (ESZ) or Ecologically Fragile Areas (EFAs) are areas in India notified by the Ministry of Environment, Forests and Climate Change (MoEFCC) around protected areas such as national parks and wildlife sanctuaries.
- The objective of declaring an area as ESZ is to create some kind of "shock absorbers" to the protected areas by regulating and managing the activities around such areas.
- ESZs also act as the buffer zones from areas of high protection to areas accorded relatively milder protection.
- It is to be noted that though Environment Protection Act, 1986 does not mention the word "Eco-Sensitive Zones", the government uses section 3(2)(v) of the Environment Protection Act, 1986 and rule 5(1) of the Environment (Protection) Rules, 1986 to declare ESZs and EFAs.

Source: EPIC February 2022

Q.4) Khijadiya Bird Sanctuary is located in which of the following state?

a) Uttar Pradesh





- b) Gujarat
- c) Uttarakhand
- d) Odisha

ANS: B

Explanation: About Khijadiya Bird Sanctuary:

- Khijadiya sanctuary is located in Gujarat;
- It is a freshwater wetland located near the coast of the Gulf of Kutch. It was formed following the creation of a bund (dike) in 1920 by the then ruler of the erstwhile princely state of Nawanagar to protect farmlands from saltwater ingress;
- The sanctuary is now part of Marine National Park, Jamnagar, the first marine national park in the country. The sanctuary is also part of the Central Asian Flyway;
- Khijadiya Bird Sanctuary has become the fourth wetland of Gujarat to get the Ramsar tag. Nalsarovar Bird Sanctuary, Thol Wildlife Sanctuary and Wadhwana wetland are the other Ramsar sites in the state.

Source: EPIC February 2022

Q.5) Denison barb (Miss Kerala), a schedule I species, recently seen in news is a

- a) Fish
- b) Butterfly
- c) Bird
- d) Dragonfly

ANS: A

Explanation: Denison Barb (Miss Kerala):

- Denison barb (Miss Kerala), a fish species, has been included in Schedule I of the Wild Life (Protection) Amendment Bill, 2021.
- It is also known as red-line torpedo barb, or roseline shark. It is a native freshwater fish species, commonly found in parts of Karnataka and Kerala. Its IUCN Status is endangered.
- The fish species is being exploited for the aquarium trade. Inclusion in Schedule I is being opposed on the grounds that it is found in 11 rivers and the income from it acts as an incentive for fishermen to protect habitats.

Source: EPIC February 2022

Q.6) White Cheeked Macaque, a newly found mammal species, is found in which of the following state?

- a) Assam
- b) Andaman and Nicobar
- c) Arunachal Pradesh
- d) Manipur

ANS: C

Explanation: White Cheeked Macaque:

- Scientists from the Zoological Survey of India (ZSI) have found a new mammal species named 'White Cheeked Macaque' in central Arunachal Pradesh. Its scientific name is Macaca leucogenys.
- This macaque is distinct from other macaques found in the region as it displays white cheeks, long and thick hairs on the neck area and a longer tail.
- With this discovery, India's mammal count increases from 437 to 438.



Q.7) Basai Wetlands, recently seen in news is located in which of the following state/UTs?

- a) Haryana
- b) Rajasthan
- c) Delhi
- d) Uttar Pradesh

ANS: A

Explanation: Basai Wetland:

- The Basai Wetlands has shrunk to a quarter of its original size over the years.
- It is located in Gurgaon, Haryana. The wetland lies in one of the paleochannel of the Sahibi River, a tributary of Yamuna which originates from the Aravalli range in Rajasthan and flows through west and South Haryana into Delhi where it is also known as the Najafgarh drain.
- It houses 20,000 birds of over 280 species including migratory birds and endangered birds. It is recognised as a Key Biodiversity Area by the IUCN and the Wildlife Institute of India and as an Important Bird Area (IBA) by BirdLife International.

Source: EPIC February 2022

Q.8) Septemeranthus, recently seen in news is a _____?

- a) Dinasour fossil
- b) Well preserved mermaid
- c) Parasitic flowering plant
- d) A poisonous fish species

ANS: C

Explanation: Septemeranthus:

- A new genus of a parasitic flowering plant named 'Septemeranthus' has recently been discovered from the Nicobar group of islands. Septemeranthus belongs to the family Loranthaceae, a hemi-parasite under the sandalwood order Santalales.
- It is endemic only to the Nicobar group of islands.
- It partially depends on its host but also has leaves capable of photosynthesis.

Source: EPIC February 2022

Q.9) Consider the following statements about One Ocean Summit:

- 1. It is being organised by Sweden in cooperation with the UNCLOS and the World Bank.
- 2. The objective of the summit is to mobilise the international community to take tangible action towards preserving and supporting healthy and sustainable ocean ecosystems.

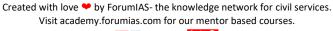
Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: One Ocean Summit:

- The One Ocean summit is being organised by France in cooperation with the United Nations and the World Bank.
- The objective of the summit is to mobilise the international community to take tangible action towards preserving and supporting healthy and sustainable ocean ecosystems.
- The United Nations has declared the decade between 2021 and 2030 as the 'Decade of Ocean Science for Sustainable Development' to raise awareness and restore declining marine life.





Q.10) Consider the following statements about Lassa fever:

- 1. It is parasitic disease found in West Africa.
- 2. It can spread from person to person through bodily fluids or through mucous membranes like eyes or nose.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: Lassa Fever:

- Lassa fever-causing virus is found in West Africa. It was first discovered in 1969 in Lassa, Nigeria. The virus spreads by rats.
- A person can become infected if they come in contact with items that are contaminated with the urine or faeces of an infected rat. It can spread from person to person through bodily fluids or through mucous membranes like eyes or nose.
- The death rate associated with this disease is low, at around 1%. The antiviral drug ribavirin seems to be an effective treatment for Lassa fever if given early on in the course of clinical illness.



