

ForumIAS

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## Prelims Marathon

7<sup>th</sup> to 13<sup>th</sup> Mar, 2022

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*HISTORY*  
*ECONOMICS*  
*POLITY*  
*SCIENCE AND TECHNOLOGY*  
*GEOGRAPHY AND ENVIRONMENT*

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## *History/ Art and Culture*

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**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 Nadu.
- 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:**

<b>Term</b>	<b>Meaning</b>
1. Amatya	Army
2. Kosha	Treasury
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.

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- 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:**

<b>Author</b>	<b>Book</b>
1. Panini	Ashtadhyayi
2. Patanjali	Mahabhashya
3. Amarasimha	Chandrvyakaranam

**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 Chandrvyakaranam.

**Source:** Tamil Nadu state board.

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## *Scheme/Programs/Institutions*

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**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 Mukd 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 Mukd Bharat (AMB) Programme:**

- Anaemia Mukd 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.

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- 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.
  - 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.
  - **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:
  - eliminate practices having adverse effect on competition
  - Promote and sustain competition.
  - 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



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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

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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 Sriharikota.
- 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.

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- 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

**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.

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- 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 into the armed forces of India and Russia and can also be exported to friendly nations.
- The 'Fire and Forget' type missile weighs 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?**

- Protons
- Electrons
- Neutrinos
- 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?**

- Mental Disorder
- Ozone Hole
- Defense forces
- Space Debris

**ANS: D**

**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 Secretary General 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

**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 (%):

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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  $23\frac{1}{2}^{\circ}\text{S}$ , while tropic of cancer is a line located in Northern hemisphere at  $23\frac{1}{2}^{\circ}\text{N}$ .
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.

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- 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

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## *Polity*

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**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 member-state. The institute is headquartered in Stockholm, Sweden.

**Source:** EPIC November 2021

**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.

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- The index is based on the findings of the fourth National Health Family Survey (2015-16).
- 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 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 instructions.
- 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

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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.

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- 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 the member'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-digit identification 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 infrastructure development, technology up-gradation 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/are not 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.

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- 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

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## *Environment*

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**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. Countries 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 be 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<sub>3</sub> 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:**

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- 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 (O<sub>3</sub>):**

- Ozone in the lower atmosphere is formed from molecular O<sub>2</sub> when in the presence of sunlight when Reactive Oxygen Species are generated. ROS combines with O<sub>2</sub> and form Tropospheric Ozone. Thus, O<sub>3</sub> 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	75 dB, day time; 70 dB, night time
Commercial Area	65 dB, day time; 55 dB, night time
Residential Area	55 dB, day time; 45 dB, night time
Silence Zone	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, Thiruvananthapuram, 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.

**Source:** EPIC November 2021

**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.

**Source:** EPIC November 2021