

ForumIAS

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## Prelims Marathon

14<sup>th</sup> to 20<sup>th</sup> Feb, 2022

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

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## Schemes/Programs/Institutions

**Q.1) Which of the following state/UTs has 100% tap water connections?**

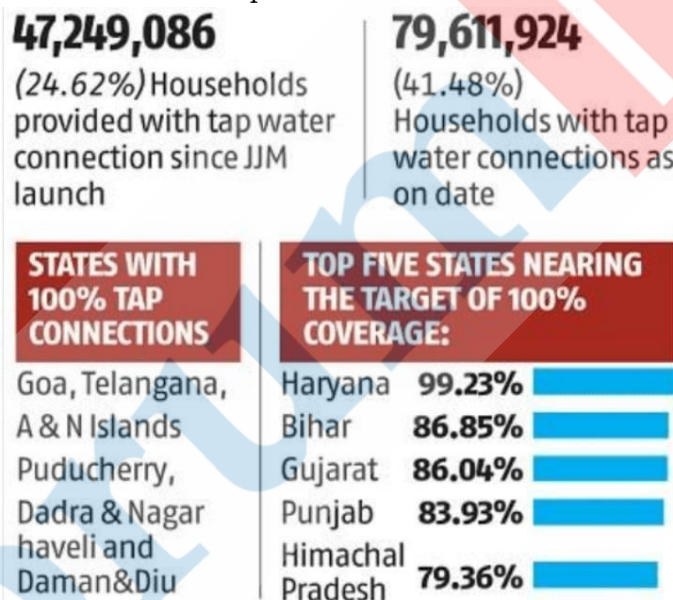
- a) Bihar
- b) Goa
- c) Delhi
- d) Chandigarh

**ANS: B**

**Explanation:** Jal Jeevan Mission has moved into its next phase of measuring and monitoring water supply.

**Achievements of 1st Phase:**

- In 2019, 7% of the rural households had tap water connections, which is increased to 41% in the last two years.
- Goa, Telangana, Andaman & Nicobar Islands and Puducherry are among states that claim to have achieved 100% tap connections in rural areas.



Source: Jal Jeevan Mission Dashboard

Source: EPIC August 2021

**Q.2) The term 'SonChiraiya', recently seen in news, is related to which of the following?**

- a) Bird conservation Programme
- b) Program to promote heritage culture of India
- c) Brand for marketing of urban Self-Help Group (SHG) products.
- d) Scheme for Self-defense training to girls.

**ANS: C**

**Explanation:**

**PRELIMS MARATHON COMPILATION FOR THE MONTH OF FEBRUARY (THIRD WEEK), 2022**

**SonChiraiya:** is a brand and logo for the marketing of urban Self-Help Group (SHG) products. This will help in improving visibility and global access for the products made by urban SHG women.

Source: EPIC August 2021

**Q.3) Consider the following statements about Jan ShikshanSansthan (JSS) Scheme:**

1. The nodal agency for implementation is Ministry of Education.
2. It aims to provide vocational skills in non-formal mode to non-literate, neo-literates, persons with a rudimentary level of education up to 8th and school dropouts up to 12th standard in the age group of 15-45 years.

**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:**

**Jan ShikshanSansthan (JSS) Scheme:**

- The Scheme of Jan ShikshanSansthan (JSS) was formerly known as the ShramikVidyapeeth scheme.
- The scheme was launched in 1967 and was renamed as Jan ShikshanSansthan in 2000.
- **Nodal Ministry:** The scheme was transferred from the Ministry of Education to the Ministry of Skill Development & Entrepreneurship in 2018.
- **Mandate:** To provide vocational skills in non-formal mode to non-literate, neo-literates, persons with a rudimentary level of education up to 8th and school dropouts up to 12th standard in the age group of 15-45 years.
- **Target Group:** The priority groups are women, SC, ST, minorities and other backward sections of the society. Implementation: The scheme is implemented through NGOs with 100% grants from the Government of India.

Source: EPIC August 2021

**Q.4) Consider the following statements about Pradhan MantriShram Yogi Maan-dhan (PM-SYM) Scheme:**

- 1 It is launched by Ministry of Ministry of Labour and Employment.
- 2 It is a voluntary and contributory pension scheme that aims to ensure old age protection for Unorganized Workers.
- 3 The beneficiary should also belong to the entry age group of 18-40 years.

**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: Pradhan MantriShram Yogi Maan-dhan (PM-SYM) Scheme:**

- **Launched by:** Ministry of Labour and Employment
- **Type:** Central Sector Scheme

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- **Aim:** It is a voluntary and contributory pension scheme that aims to ensure old age protection for Unorganised Workers
- **Coverage:** The scheme covers unorganised workers (home-based workers, street vendors, mid-day meal workers, head loaders, landless labourers and similar other occupations) whose monthly income is Rs 15,000/ per month or less. The beneficiary should also belong to the entry age group of 18-40 years. Moreover, they should also not be covered under New Pension Scheme (NPS), the Employees' State Insurance Corporation (ESIC) scheme or the Employees' Provident Fund Organisation (EPFO).
- Further, he/she should not be an income taxpayer.

Source: EPIC August 2021

### **Q.5) Consider the following statements regarding International Development Agency (IDA):**

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

**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 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 disbursement for them.

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: TMH Ramesh Singh

**Q.6) 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.7) “BASEL ACCORDS” is frequently in news is related to which of the following?**

- a) Health Infrastructure
- b) Environmental Conservation
- c) Global Commons
- d) Banking Provisions

**ANS: D**

**Explanation:** The Basel Accords (i.e., Basel I, II and now III) are a set of agreements set by the Basel Committee on Bank Supervision (BCBS), which provides recommendations on banking regulations in regards to capital risk, market risk and operational risk. The purpose of the accords is to ensure that financial institutions have enough capital on account to meet obligations and absorb unexpected losses. They are of paramount importance to the banking World and are presently implemented by over 100 countries across the world.

Source: The Hindu



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Q8. Consider the following statements regarding Yuva Vaigyanik Karyakram (YUVIKA):

1. It was launched by NITI Aayog.
2. It was launched for XI standard students to imparting basic knowledge on Space Technology, Space Science and Space Applications.

**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:** Indian Space Research Organisation has launched a special programme for School Children called “Young Scientist Programme” “YUva VIGyani KARYakram” from the year 2019.

The second session of the programme is scheduled to be held during the month of May 2020.

- The Program is primarily aimed at imparting basic knowledge on Space Technology, Space Science and Space Applications to the younger ones with the intent of arousing their interest in the emerging areas of Space activities.
- The program is thus aimed at creating awareness amongst the youngsters who are the future building blocks of our Nation. ISRO has chalked out this programme to “Catch them young”.
- The programme will be of two weeks duration during summer holidays (May 11-22, 2020) and the schedule will include invited talks, experience sharing by the eminent scientists, facility and lab visits, exclusive sessions for discussions with experts, practical and feedback sessions.
- 3 students each from each State/ Union Territory will be selected to participate in this programme covering CBSE, ICSE and State syllabus.
- 5 additional seats are reserved for OCI candidates across the country. Those who have finished 8th standard and currently studying in 9th standard (in the academic year 2019-20) will be eligible for the programme.
- Students who are studying in India including OCI (Overseas Citizen of India) are eligible for the programme. The selection is based on the 8th Standard academic performance and extracurricular activities.

Source: ForumIAS factly

**Q.9) The “Global Social Mobility Index” is released by which of the following International Institution?**

- a) UNESCO
- b) United Nations Development Programme (UNDP)
- c) World Economic Forum (WEF)
- d) UNICEF

**ANS: C**

**Explanation:** India has been ranked very low at 76th place out of 82 countries on a new Social Mobility Index compiled by the World Economic Forum, while Denmark has topped the charts. The report, released ahead of the 50th Annual Meeting of the WEF, also lists India among the five countries that stand to gain the most from a better social mobility score that seeks to measure parameters necessary for creating societies where every person has the same opportunity to fulfill his potential in life irrespective of socioeconomic background.

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Source: The Hindu

**Q.10) Consider the following statements regarding the Dr. Ambedkar scheme for Social integration through Inter Caste Marriages:**

1. It is applicable to 1000 couples annually.
2. Each couple gets 5 lakh rupees.
3. To avail the scheme, one of the couple should belong to either schedule caste or schedule tribes.

**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:** Under the Dr. Ambedkar scheme for Social integration through Inter Caste Marriages scheme, 500 couples can apply annually. Each couple gets Rs 2.5 lakh, of which Rs 1.5 lakh is paid up-front. The balance amount is kept as a fixed deposit and released to the couple after three years:

- The number of couples who can avail the scheme in a state depends on its Scheduled Caste population as per the 2011 census.
- Among the beneficiary couple, one of the spouses should belong to Scheduled Caste and the other to a Non-Scheduled Caste.
- It shall be the discretion of the Minister of Social Justice & Empowerment and Chairman of Dr. Ambedkar Foundation to sanction the incentive to the Couple.

Source: The Hindu

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## *Science and Technology*

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**Q.1) Consider the following statements about Single Nucleotide Polymorphism (SNP):**

1. It is a type of DNA microarray which is used to detect polymorphisms within a population.
2. SNP chips are DNA microarrays that test genetic variation at many hundreds of thousands of specific locations across the genome.

**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: Single Nucleotide Polymorphism (SNP):**

- It is a type of DNA microarray which is used to detect polymorphisms within a population.
- SNP chips are DNA microarrays that test genetic variation at many hundreds of thousands of specific locations across the genome.
- SNP chips have proven to be excellent for studying common genetic variation, which can be used to assess ancestry as well as predisposition to many complex multifactorial diseases.

Source: EPIC August 2021

**Q.2) Which of the following theory argues that light is made of photons and when light shines on a metal, each photon's energy is correlated to the electron's speed on the metal's surface?**

- a) Quantum theory
- b) Wave theory
- c) Electro-magnetic wave theory
- d) Law of photoelectric effect

**ANS: D**

**Explanation: Law of photoelectric effect:**

- It argues that light is made of photons and when light shines on a metal, each photon's energy is correlated to the electron's speed on the metal's surface.
- This theory redefined the composition of light, and it is held as a revolutionary theory, for which Einstein received the Nobel Prize in 1921.

Source: EPIC August 2021



**Q.3) Consider the following statements about National Gene Bank:**

1. National Gene Bank was established in 2006.
2. It aims to preserve the seeds of Plant Genetic Resources (PGR) for future generations in the form of seeds, genomic resources, pollen etc

**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: National Gene Bank:**

- National Gene Bank was established in 1996.
- It aims to preserve the seeds of Plant Genetic Resources (PGR) for future generations in the form of seeds, genomic resources, pollen etc.
- **Hosted By:** National Bureau of Plant Genetic Resources (NBPGR), New Delhi.
- Germplasm is a live information source for all the genes present in the respective plant. It can be conserved for long periods and regenerated whenever it is required in the future.

Source: EPIC August 2021

**Q.4) Consider the following statements about kala-azar:**

1. It is caused by Fungi.
2. The only drug available against leishmaniasis is miltefosine.

**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: Visceral Leishmaniasis (VL):**

- Visceral Leishmaniasis (VL) is also known as kala-azar.
- Leishmaniasis is a group of diseases caused by protozoan parasites.
- The disease is characterized by irregular bouts of fever, substantial weight loss, swelling of the spleen and liver, and anemia.
- It is a neglected tropical disease that affects millions annually, making it the second most common parasitic killer after malaria.
- If the disease is not treated, the fatality rate in developing countries can be as high as 100% within 2 years.

Source: EPIC August 2021

**Q.5) “Exercise Konkan”, recently seen in news, is a bilateral exercise between which of the following pair?**

- a) India and UK
- b) India and USA
- c) India and Russia
- d) India and France

**ANS: A**

**Explanation:** Exercise Konkan-2021 is a bilateral maritime exercise between the Indian Navy and the Royal Navy of the UK. It was held in English Channel in 2021.

Source: EPIC August 2021

**Q.6) “Tianhe-2, Titan, Mira and Piz Daint” are the examples of which of the following?**

- a) Supercomputers
- b) Stars in Milky Way Galaxy
- c) Nearby Galaxies
- d) Comets

**ANS: A**

**Explanation:** A supercomputer is a computer with a high level of performance as compared to a general-purpose computer. The performance of a supercomputer is commonly measured in floating-point operations per second (FLOPS) instead of million instructions per second (MIPS). Since 2017, there are supercomputers which can perform over a hundred quadrillion FLOPS (petaFLOPS). Since November 2017, all of the world's fastest 500 supercomputers run Linux-based operating systems.

Tianhe-2, a supercomputer developed by China's National University of Defense Technology, retains its position as the world's No. 1 system with a performance of 33.86 petaflop/s (quadrillions of calculations per second) on the Linpack benchmark. It was built by China's National University of Defense Technology (NUDT) in collaboration with the Chinese IT firm Inspur.

Source: The Hindu

**Q.7) The government of India launched Conference, Travel, Exhibition and Popular lectures (CTEP) to promote which of the following field?**

- a) Biotechnology
- b) Nuclear technology
- c) Nanotechnology
- d) Space technology

**ANS: A**

**Explanation:** To popularize Biotechnology activities in India, Department of Biotechnology (DBT), Government of India provides financial assistance towards organizing Conference/ Seminar/ Symposium/ Workshop and Travel support to the researchers for presenting their papers in the conferences which are being organized outside the country. It also extends support for organizing DBT stalls in Exhibitions held within the country as well as outside the country. Financial supports are also provided for organising Popular Lectures. The collective term for these four activities is CTEP (Conference, Travel, Exhibition and Popular Lectures).

Source: The Hindu

**Q.8) Consider the following statements with respect to Satish Dhawan Space Centre (SDSC):**

1. SDSC SHAR, Sriharikota, the Spaceport of India, is responsible for providing Launch Base Infrastructure for the Indian Space Programme.
2. The Centre has two launch pads from where the rocket launching operations of PSLV, GSLV and Sounding rockets are carried out.

**Which of the following below given codes are correct?**

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

**ANS: A**

**Explanation:** Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota, the Spaceport of India, is responsible for providing Launch Base Infrastructure for the Indian Space Programme. This Centre has the facilities for solid propellant processing, static testing of solid motors, launch vehicle integration and launch operations, range operations comprising telemetry, tracking and command network and mission control centre.

The Centre has two launch pads from where the rocket launching operations of PSLV and GSLV are carried out. The mandate for the centre is (i) to produce solid propellant boosters for the launch vehicle programmes of ISRO (ii) to provide the infrastructure for qualifying various subsystems and solid rocket motors and carrying out the necessary tests (iii) to provide launch base infrastructure for satellites and launch vehicles.

**SDSC SHAR has a separate launch pad for launching sounding rockets.** The centre also provides the necessary launch base infrastructure for sounding rockets of ISRO and for assembly, integration and launch of sounding rockets and payloads.

Source: ISRO website

**Q.9) Consider the following statements with respect to Department of Space (DOS):**

1. The Government of India established the Department of Space (DOS) in June 1972
2. The Department of Space (DOS) has the primary objective of promoting development and application of space science and technology to assist in all-round development of the nation

**Which of the following below given codes are correct?**

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

**ANS: C**

**Explanation:** The Department of Space (DOS) has the primary objective of promoting development and application of space science and technology to assist in all-round development of the nation. Towards this, DOS has evolved the following programmes:

1. Launch Vehicle programme having indigenous capability for launching spacecrafts.
2. INSAT Programme for telecommunications, broadcasting, meteorology, development of education etc.

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3. Remote Sensing Programme for application of satellite imagery for various developmental purposes.
4. Research and Development in Space Sciences and Technology for serving the end of applying them for national development.

**Organization:** With the setting up of Indian National Committee for Space Research (INCOSPAR) in 1962, the space activities in the country were initiated. In the same year, the work on Thumba Equatorial Rocket Launching Station (TERLS) near Thiruvananthapuram was also started. Indian Space Research Organization (ISRO) was established in August 1969. The Government of India constituted the Space Commission and established the Department of Space (DOS) in June 1972 and brought ISRO under DOS in September 1972.

Source: The Hindu

**Q.10) Consider the following statements with respect to DRDO:**

1. DRDO, is an agency of GOI, charged with military's research and development.
2. It is head quartered in Mumbai.
3. It is under administrative control of Ministry of Science and technology.
4. It also works in the field of life science engineering.

**Which of the following given below codes are correct?**

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

**ANS: D**

**Explanation:** The Defense Research and Development Organization (DRDO) is an agency of the Government of India, charged with the military's research and development, headquartered in New Delhi, India. It was formed in 1958 by the merger of the Technical Development Establishment and the Directorate of Technical Development and Production with the Defense Science Organization. It is under the administrative control of the Ministry of Defense, Government of India.

Source: DRDO website

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## *Location/IR/Geography*

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**Q.1) Consider the following statements about Oceanic waves:**

1. Waves are movement of energy rather than movement of water particles.
2. Water particles in a wave travel in small circles.

**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: Oceanic Waves**

- Waves are actually the energy, not the water as such, which moves across the ocean surface.
- Water particles only travel in a small circle as a wave passes.
- Wind provides energy to the waves.
- Wind causes waves to travel in the ocean and the energy is released on shorelines.
- The motion of the surface water seldom affects the stagnant deep bottom water of the oceans.
- As a wave approaches the beach, it slows down. This is due to the friction occurring between the dynamic water and the sea floor. And, when the depth of water is less than half the wavelength of the wave, the wave breaks.
- The largest waves are found in the open oceans. Waves continue to grow larger as they move and absorb energy from the wind.

Source: NCERT

**Q.2) Consider the following statements about coral reefs:**

1. Coral Reefs are the rainforests of the sea.
2. Corals thrive in temperate waters.
3. Fresh water is most suitable for growth of corals.

**Which of the statement given above is/are Not correct?**

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

**ANS: B**

**Explanation: Coral Reefs**

- Coral reefs are important ocean habitats and offer a compelling case of the risks of climate change.
- Reefs provide a large fraction of Earth's biodiversity—they have been called "the rain forests of the seas."
- Scientists estimate that 25 percent of all marine species live in and around coral reefs, making them one of the most diverse habitats in the world.



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- Coral characteristics:
  - Shallow water, reef-building corals have a symbiotic relationship with photosynthetic algae called zooxanthellae, which live in their tissues.
  - Stable climatic conditions: Corals are highly susceptible to quick changes. They grow in regions where climate is significantly stable for a long period of time.
  - Perpetually warm waters: Corals thrive in tropical waters [30°N and 30°S latitudes, the temperature of water is around 20°C] where diurnal and annual temperature ranges are very narrow.
  - Clear salt water: Clear salt water is suitable for coral growth, while both fresh water and highly saline water are harmful.
  - Abundant Plankton: Adequate supply of oxygen and microscopic marine food called plankton [phytoplankton], is essential for growth. As the plankton is more abundant on the seaward side, corals grow rapidly on the seaward side.
  - Little or no pollution: Corals are highly fragile and are vulnerable to climate change and pollution and even a minute increase in marine pollution can be catastrophic.

Source: NCERT

### **Q.3) Consider the following statements about UN Assistance Mission in Afghanistan (UNAMA):**

1. UNAMA was established in 2021.
2. Its mandate is to work on humanitarian grounds for people during Taliban conquest.

**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 UN Assistance Mission in Afghanistan (UNAMA):**

- UNAMA is a UN Special Political Mission established to assist the state and the people of Afghanistan in laying the foundations for sustainable peace and development.
- **Established in:** UNAMA was established in 2002 by United Nations Security Council Resolution 1401.
- **Mandate:** Its original mandate was to support the implementation of the Bonn Agreement. Reviewed annually, this mandate has been altered over time to reflect the needs of Afghanistan.
- Bonn Agreement was the initial series of agreements passed in 2001 and intended to recreate the State of Afghanistan following the U.S. invasion of Afghanistan in response to the September 11, 2001, terrorist attacks.
- **Headquarters:** Kabul, Afghanistan.

Source: EPIC August 2021



**Q.4) Sinamalé Bridge which connects Malé with the islands of Hulhulé and Hulhumalé in Maldives has been built by which of the following countries?**

- a) India
- b) China
- c) Japan
- d) USA

**ANS: B**

**Explanation:** Sinamalé Bridge is a 1.39 km long bridge built by the Chinese Government. The bridge connects Malé with the islands of Hulhulé and Hulhumalé.

**About Greater Male Connectivity Project:**

- Greater Male Connectivity Project is the largest ever infrastructure project in the Maldives.
- The project involves the construction of a 6.74-km-long bridge and causeway link that will connect the Maldives capital Malé with the neighbouring islands of Villingli, Gulhifalhu and Thilafushi.

Source: EPIC August 2021

**Q.5) Who among the following geographers is related to 'primate city' concept?**

- a) August Losch
- b) Mark Jefferson
- c) Griffith Taylor
- d) W. Christaller

**ANS: B**

**Explanation:** A primate city is the largest city in its country or region, disproportionately larger than any others in the urban hierarchy. A 'primate city distribution' is a rank-size distribution that has one very large city with many much smaller cities and towns, and no intermediate-sized urban centres – a King effect, visible as an outlier on an otherwise linear graph, when the rest of the data fit a power law or stretched exponential function. The 'law of the primate city' was first proposed by the geographer Mark Jefferson in 1939. He defines a primate city as being "at least twice as large as the next largest city and more than twice as significant. A primate city is number one in its country in most aspects, like politics, economy, media, culture and universities.

Source: NCERT

**Q.6) Which is the warmest layer of the atmosphere?**

- a) Thermosphere
- b) Troposphere
- c) Stratosphere
- d) Mesosphere

**ANS: A**

**Explanation:** The thermosphere is the layer of the Earth's atmosphere directly above the mesosphere. It extends from about 90 km to 1,000 km above our planet. In thermosphere temperature can reach up to 4,500 degrees Fahrenheit. Thus, making it warmest layer of the atmosphere.

Source: NCERT

**Q.7) Consider the following statement about saline soils of India:**

1. Saline soils contain a larger proportion of sodium, potassium and magnesium.
2. Saline soils are also known as Urvara.

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

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

**ANS: A**

**Explanation:** India has varied relief features, landforms, climatic realms and vegetation types. These have contributed in the development of various types of soils in India. In ancient times, soils used to be classified into two main groups – Urvara and Usara, which were fertile and sterile, respectively.

**Saline Soils**

- They are also known as Usara soils.
- Saline soils contain a larger proportion of sodium, potassium and magnesium, and thus, they are infertile, and do not support any vegetative growth.
- They have more salts, largely because of dry climate and poor drainage.
- They occur in arid and semi-arid regions, and in waterlogged and swampy areas.
- Their structure ranges from sandy to loamy.
- They lack in nitrogen and calcium.
- Saline soils are more widespread in western Gujarat, deltas of the eastern coast and in Sunderban areas of West Bengal. In the Rann of Kuchchh, the Southwest Monsoon brings salt particles and deposits there as a crust.
- Seawater intrusions in the deltas promote the occurrence of saline soils. In the areas of intensive cultivation with excessive use of irrigation, especially in areas of green revolution, the fertile alluvial soils are becoming saline.
- Excessive irrigation with dry climatic conditions promotes capillary action, which results in the deposition of salt on the top layer of the soil. In such areas, especially in Punjab and Haryana, farmers are advised to add gypsum to solve the problem of salinity in the soil.

Source: NCERT

**Q.8) Consider the following pairs of crops grown and type of soil:**

<b>Crop</b>	<b>Type of soil</b>
1. Wheat	Clayey
2. Cotton	Sandy-loam
3. Lentils	Loamy

**Which of the pair given above is/are correctly matched?**

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

**ANS: D**

**Explanation:** Different types of soils are found in different parts of India. In some parts there is clayey soil, in some parts there is loamy soil while in some other parts there is sandy soil.

Soil is affected by wind, rainfall, temperature, light and humidity. These are some important climatic factors which affect the soil profile and bring changes in the soil structure.

The climatic factors, as well as the components of soil, determine the various types of vegetation and crops that might grow in any region. Clayey and loamy soils are both suitable for growing cereals like wheat, and gram. Such soils are good at retaining water.

For paddy, soils rich in clay and organic matter and having a good capacity to retain water are ideal. For lentils (masoor) and other pulses, loamy soils, which drain water easily, are required.

For cotton, sandy-loam or loam, which drain water easily and can hold plenty of air, are more suitable. Crops such as wheat are grown in the fine clayey soils, because they are rich in humus and are very fertile. So, all the pairs are correctly matched. Hence, option D is the correct answer.

Source: NCERT

**Q.9) Which of the following is/are correctly matched?**

**Disaster**

**Type of Natural Disaster**

- |                |             |
|----------------|-------------|
| 1. Blizzards   | Atmospheric |
| 2. Drought     | Territorial |
| 3. Storm Surge | Aquatic     |

**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: C**

**Explanation:** Human beings the world over have experienced disasters and have faced and lived with them. Now people are becoming aware and various steps have been initiated at different levels for mitigating the effects of disasters. Identification and classification of disasters is being considered as an effective and scientific step to deal promptly and efficiently with the disasters. Broadly, natural disasters can be classified under four categories. The table below summarizes classification of natural disaster.

<b>Classification of Natural Disasters</b>			
<b>Atmospheric</b>	<b>Terrestrial</b>	<b>Aquatic</b>	<b>Biological</b>
Blizzards Thunderstorms Lightning Tornadoes Storm Surge Drought Hailstorm Frost, Heat Wave or Loo.Cold Waves, etc.	Earthquakes Volcanic Eruptions Landslides Avalanches Subsidence Soil Erosion	Floods Tidal Waves Ocean Currents Tropical Cyclone Tsunami	Plants and Animals as colonisers (Locusts, etc.). Insects infestation—fungal, bacterial and viral diseases such as bird flu, dengue, etc.

Source: NCERT

**Q.10) Consider the following statements about 'Chinook':**

1. It is the local wind on the eastern slopes of the Rockies.
2. Chinook is cold wind.
3. The wind blows in a south westerly direction to the prairies.

**Which of the statements given above is/are correct?**

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

**ANS: B**

**Explanation:** Chinook winds – also known as Foehn winds in other parts of the world – are a type of warm, dry wind that occur on the downward slope of a mountain when warm air has lost its moisture.

In Canada, the winds originate from the Pacific Coast. Cool as they blow up the Canadian Rockies, they warm significantly as they drop down the eastern slopes, freeing Calgarians for a few blissful moments from winter's icy grasp. It comes in a south-westerly direction to the prairies and has a considerable effect on the local pastures.

Source: G C Leong

## Polity

**Q.1) Consider the following statements with respect to Finance Commission:**

1. Article 248 of Indian constitution provides Finance Commission.
2. Finance commission constituted by Parliament for every five years.

**Which of the statements given above is/are correct?**

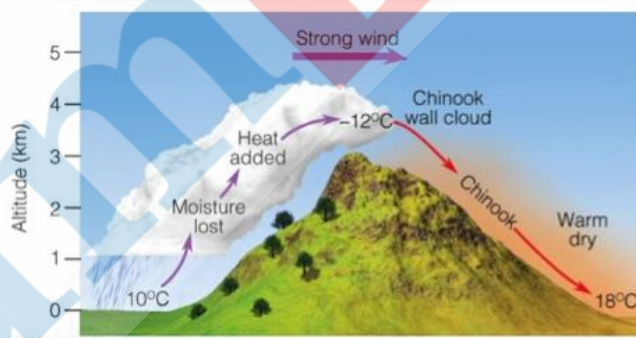
- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**ANS: D**

**Explanation:** Article 280 provides for a Finance Commission as a quasi-judicial body. It is constituted by the President every fifth year or even earlier. It is required to make recommendations to the President on the following matters:

- The distribution of the net proceeds of taxes to be shared between the Centre and the states, and the allocation between the states, the respective shares of such proceeds.
- The principles which should govern the grants-in-aid to the states by the Centre (i.e., out of the Consolidated Fund of India).
- The measures needed to augment the consolidated fund of a state to supplement the resources of the panchayats and the municipalities in the state on the basis of the recommendations made by the State Finance Commission.
- Any other matter referred to it by the President in the interests of sound finance.

Source: Laxmikant



**Q.2) Which State Appointed Rajamannar Committee to give recommendations on Inter-State Relation?**

- Andhra Pradesh
- Tamil Nadu
- Kerala
- Karnataka

**ANS: B**

**Explanation:** In 1969, the Tamil Nadu Government (DMK) appointed a three-member committee under the chairmanship of Dr P V Rajamannar to examine the entire question of Centre–state relations and to suggest amendments to the Constitution so as to secure utmost autonomy to the states. The committee submitted its report to the Tamil Nadu Government in 1971.

Source: The Hindu

**Q.3) Consider the following statements with respect to Inter-State Council:**

1. It is established by Parliament.
2. Article 263 contemplates the establishment of an Inter-State Council to effect coordination between the states and between Centre and 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: 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 organization and procedure.

Source: Laxmikant

**Q.4) Consider the following statements with respect to “Chief Minister”:**

1. The Constitution contains specific procedure for the selection and appointment of the Chief Minister.
2. Article 164 only says that the Chief Minister shall be appointed by the governor.

**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 Constitution does not contain any specific procedure for the selection and appointment of the Chief Minister. Article 164 only says that the Chief Minister shall be appointed by the governor. However, this does not imply that the governor is free to appoint any one as the Chief Minister. In accordance with the conventions of the parliamentary system of government, the governor has to appoint the leader of the majority party in the state legislative assembly as the Chief Minister.

Source: Laxmikant



**Q.5) Consider the following statements with respect to “High Court”:**

1. The Constitution of India provides for a high court for each state.
2. 5th Amendment Act authorized the Parliament to establish a common high court for two or more states or for two or more states and a union territory.

**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 Constitution of India provides for a high court for each state, but the Seventh Amendment Act of 1956 authorized the Parliament to establish a common high court for two or more states or for two or more states and a union territory. The territorial jurisdiction of a high court is co-terminus with the territory of a state. Similarly, the territorial jurisdiction of a common high court is co-terminus with the territories of the concerned states and union territory.

Source: 9 PM Compilation of August 2021

**Q.6) Part XXI of the constitution related to which of the following?**

- a) Emergency Provisions
- b) Inter-State Relations
- c) Special Provisions related to States
- d) Special Category Status

**ANS: C**

**Explanation:** Articles 371 to 371-J in Part XXI of the constitution contain special provisions for twelve states viz., Maharashtra, Gujarat, Nagaland, Assam, Manipur, Andhra Pradesh, Telangana, Sikkim, Mizoram, Arunachal Pradesh, Goa and Karnataka. The intention behind them is to meet the aspirations of the people of backward regions of the states or to protect the cultural and economic interests of the tribal people of the states or to deal with the disturbed law and order condition in some parts of the states or to protect the interests of the local people of the states.

Source: Laxmikant

**Q.7) Which of the following rights and privileges are conferred on the citizens of India and not to the aliens?**

1. Right under Article 15
2. Right under Article 20
3. Right under Article 21

**Select the correct code from given below options:**

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

**ANS: A**

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**Explanation:** The Constitution confers the following rights and privileges on the citizens of India (and denies the same to aliens):

1. Right against discrimination on grounds of religion, race, caste, sex or place of birth (Article 15).
2. Right to equality of opportunity in the matter of public employment (Article 16).
3. Right to freedom of speech and expression, assembly, association, movement, residence and profession (Article 19).
4. Cultural and educational rights (Articles 29 and 30).
5. Right to vote in elections to the Lok Sabha and state legislative assembly.
6. Right to contest for the membership of the Parliament and the state legislature.
7. Eligibility to hold certain public offices, that is, President of India, Vice-President of India, judges of the Supreme Court and the high courts, governor of states, attorney general of India and advocate general of states.

Source: 9 PM compilation of August 2021

### **Q.8) Consider the following statements about Fundamental Duties:**

1. The Fundamental Duties in the Indian Constitution are inspired by the Constitution of USA.
2. Sardar Swaran Singh Committee made recommendations about Fundamental duties.
3. All the recommendations of the committee were accepted.

**Select the correct code from given below options:**

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

**ANS: C**

**Explanation:** The Fundamental Duties in the Indian Constitution are inspired by the Constitution of erstwhile USSR. Notably, none of the Constitutions of major democratic countries like USA, Canada, France, Germany, Australia and so on specifically contain a list of duties of citizens. Japanese Constitution is, perhaps, the only democratic Constitution in world which contains a list of duties of citizens.

In 1976, the Congress Party set up the Sardar Swaran Singh Committee to make recommendations about fundamental duties, the need and necessity of which was felt during the operation of the internal emergency (1975–1977). The committee recommended the inclusion of a separate chapter on fundamental duties in the Constitution. It stressed that the citizens should become conscious that in addition to the enjoyment of rights, they also have certain duties to perform as well. The Congress Government at Centre accepted these recommendations and enacted the 42nd Constitutional Amendment Act in 1976. This amendment added a new part, namely, Part IVA to the Constitution. This new part consists of only one Article, that is, Article 51A which for the first time specified a code of ten fundamental duties of the citizens.

Interestingly, certain recommendations of the Committee were not accepted by the Congress Party and hence, not incorporated in the Constitution. These include:

- The Parliament may provide for the imposition of such penalty or punishment as may be considered appropriate for any non-compliance with or refusal to observe any of the duties.

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- No law imposing such penalty or punishment shall be called in question in any court on the ground of infringement of any of Fundamental Rights or on the ground of repugnancy to any other provision of the Constitution.
- Duty to pay taxes should also be a Fundamental Duty of the citizens.

Source: 9 PM Compilation of August 2021

### **Q.9) What is the difference between “vote-on-account” and “interim budget”?**

1. The provision of a “vote-on-account” is used by a regular Government, while an “interim budget” is a provision used by a caretaker Government.
2. A “vote-on-account” only deals with the expenditure in Government’s budget, while an “interim budget” includes both expenditure and receipts.

**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:** A vote-on-account only deals with the expenditure side of the government's budget while an Interim Budget is a complete set of accounts, including both expenditure and receipts, akin to a full budget. For instance, P. Chidambaram had presented the last interim budget of the UPA Government on February 17, 2014, while Arun Jaitley presented the full budget - and the Modi government's first one - five months later.

From a moral standpoint, government ought to avoid introducing radical changes in an Interim Budget since it may not have the mandate for the next five years and, if there is a regime change at the Centre, the new government will have its own policy game plan.

Source: The Hindu

### **Q.10) Which of the following is/are among the Fundamental Duties of citizens laid down in the Indian Constitution?**

1. To preserve the rich heritage of our composite culture
2. To protect the weaker sections from social injustice
3. To develop the scientific temper and spirit of inquiry

**Select the correct answer using the codes given below:**

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

**ANS: C**

**Explanation:** Following are the Fundamental Duties under the Constitution of India which is given in Part IV-A of the Constitution of India which was inserted by the (42nd Amendment) Act, 1976.

It shall be the duty of every citizens of India-

1. to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem
2. to cherish and follow the noble ideals which inspired our national struggle for freedom;

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3. to uphold and protect the sovereignty, unity and integrity of India;
4. to defend the country and render national service when called upon to do so;
5. to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
6. to value and preserve the rich heritage of our composite culture;
7. to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;
8. to develop the scientific temper, humanism and the spirit of inquiry and reform;
9. to safeguard public property and to abjure violence;
10. to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement.
11. who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.

Source: Laxmikant

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## *Economy*

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**Q.1) The Silver line project is sometimes seen in news is related to which of the following state?**

- a) Goa
- b) Karnataka
- c) Andhra Pradesh
- d) Kerala

**ANS: D**

**Explanation:** The Kerala Rail Development Corporation (KRDCL) is confident that the Rs.66,405 crore Thiruvananthapuram-Kasaragod semi-high-speed 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 Infrastructure Investment 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: EPIC August 2021.

**Q.2) 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: EPIC August 2021

**Q.3) Which of the following statements is/are correct about “India Infrastructure Finance Company Ltd (IIFCL)”?**

1. It is jointly owned by Public sector and Private sector.
2. It provides long-term financial assistance to viable infrastructure projects.

**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:** IIFCL is a wholly-owned Government of India Company set up in 2006 to provide long-term financial assistance to viable infrastructure projects through the Scheme for Financing Viable Infrastructure Projects through a Special Purpose Vehicle called India Infrastructure Finance Company Ltd (IIFCL), broadly referred to as SIFTI.

- The sectors eligible for financial assistance from IIFCL are as per the Harmonized list of Infrastructure Sub-Sectors as approved by the Government and as amended from time to time.
- These broadly include transportation, energy, water, and sanitation, and communication, social and commercial infrastructure.

Source: TMH Ramesh Singh

**Q.4) The validity time period of a patent in India is how many years?**

- a) 5 years
- b) 10 years
- c) 20 years
- d) 30 years

**ANS: C**

**Explanation:** The term of every patent in India is twenty years from the date of filing the patent application, irrespective of whether it is filled with provisional or complete specification. However, in case of applications filed under the Patent Cooperative Treaty (PCT), the term of twenty years begins from the priority date.

Source: Factly

**Q.5) With reference to the Traditional Knowledge Digital Library, which of the following statements is/are correct?**

1. It is collaboration between private industry and CSIR.
2. It manages a database of knowledge that exists in various local languages.

**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:** Traditional Knowledge Digital Library is a collaboration – between the Council of Scientific and Industrial Research (CSIR) and the Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (Dept. of AYUSH), Ministry of Health & Family Welfare, Government of India.

- It manages a database of knowledge that exists in various local languages such as Sanskrit, Urdu, Arabic, Persian and Tamil.
- TKDL has also converted the database into five international languages in patent application formats.
- So far, over 2lakh medicinal formulations have been transcribed and the database is present in 30 million A4-size pages.

Source: TKDL

**Q.6) Which of the following report/reports is/are not released by World Bank?**

1. Global Economic Prospect Report.
2. Global Financial Development Report.
3. Global Financial Stability Report.

**Select the correct answer using the code given below:**

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

**ANS: C**

**Explanation:** Both Global Economic Prospect Report and Global Financial Development Report are released by World Bank.

NOTE: Global Financial Stability Report is released by International Monetary Fund (IMF).

Source: World Bank

**Q.7) In money market trading is done on a rate known as discount rate which is determined by?**

- a) Repo rate
- b) Reverse repo rate
- c) Cash reserve ratio
- d) Statutory liquidity ratio

**ANS: A**

**Explanation:** Money market is the short-term financial market of an economy.

- In this market, money is traded between individuals or groups (i.e., financial institutions, banks, government, companies, etc.), who are either cash-surplus or cash-scarce.
- Trading is done on a rate known as discount rate which is determined by the market and guided by the availability of and demand for the cash in the day-to-day trading.
- The 'repo rate' of the time (announced by the RBI) works as the guiding rate for the current 'discount rate'.

Source: TMH Ramesh Singh

**Q.8) “A graphic curve which advocates a relationship between inflation and unemployment in an economy”- describes which of the following?**

- a) Phillips curve
- b) Laffer Curve
- c) Lorenz curve
- d) Gini coefficient

**ANS: A**

**Explanation:** Phillips curve is a graphic curve which advocates a relationship between inflation and unemployment in an economy.

- As per the curve there is a ‘trade off’ between inflation and unemployment, i.e., an inverse relationship between them.
- The curve suggests that lower the inflation, higher the unemployment and higher the inflation, lower the unemployment.
- During the 1960s, this idea was among the most important theories of the modern economists.
- This concept is known after the economists who developed it—Alban William Housego Phillips (1914–75).

Source: TMH Ramesh Singh

**Q.9) Which of the following is/are not recommendations of “N K Singh committee”?**

1. The combined debt-to-GDP ratio of the centre and states should be brought down to 60 per cent by 2023.
2. The Committee advocated Primary Deficit as the operating target to bring down public debt.
3. The Committee also recommends that centre reduce its revenue deficit steadily by 0.5% GDP points each year.

**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: C**

**Explanation:** The FRBM Review Committee headed by former Revenue Secretary, NK Singh was appointed by the government to review the implementation of FRBM. In its report submitted in January 2017, titled, ‘The Committee in its Responsible Growth: A Debt and Fiscal Framework for 21st Century India’, the Committee suggested that a rule based fiscal policy by limiting government debt, fiscal deficit and revenue deficits to certain targets is good for fiscal consolidation in India. Following are the main recommendations of the NK Singh Committee.

- Public debt to GDP ratio should be considered as a medium-term anchor for fiscal policy in India. The combined debt-to-GDP ratio of the centre and states should be brought down to 60 per cent by 2023 (comprising of 40 per cent for the Centre and 20% for states) as against the existing 49.4 per cent, and 21per cent respectively.
- Fiscal deficit as the operating target: The Committee advocated fiscal deficit as the operating target to bring down public debt. For fiscal consolidation, the centre should reduce its fiscal deficit from the current 3.5% (2017) to 2.5% by 2023.

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- Revenue deficit target: The Committee also recommends that the central government should reduce its revenue deficit steadily by 0.25 percentage (of GDP) points each year, to reach 0.8% by 2023, from a projected value of 2.3% in 2017.
- Formation of Fiscal Council to advise the government: The Committee advocated formation of institutions to ensure fiscal prudence in accordance with the FRBM spirit. It recommended setting up an independent Fiscal Council. The Council will provide several advisory functions.
- Escape Clause to accommodate counter cyclical issues.

Source: Sriram's IAS

**Q.10) In economics "Dutch disease" is related to which of the following?**

- a) Exports
- b) Animal rearing
- c) Financial Markets
- d) Environmental conservation

**ANS: A**

**Explanation:** When an increase in one form of net exports drives up a country's exchange rate, it is called the Dutch Disease.

- Such instances make other exports noncompetitive in the world market and impair the ability of domestic products to compete with imports.
- The term originated from the supposed effect of natural gas discoveries on the Netherlands economy.

Source: TMH Ramesh Singh

## *Environment*

**Q.1) Consider the following statements with respect to “Keystone Species”:**

1. It can be any organism, from animals and plants to bacteria and fungi.
2. Keystone species maintain the local biodiversity of an ecosystem, influencing the abundance and type of other species in a habitat.

**Which of the following below given codes are correct?**

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

**ANS: C**

**Explanation:** A keystone species—which can be any organism, from animals and plants to bacteria and fungi—is the glue that holds a habitat together. It may not be the largest or most plentiful species in an ecological community, but if a keystone is removed, it sets off a chain of events that turns the structure and biodiversity of its habitat into something very different. Although all an ecosystem’s many components are intricately linked, these are the living things that play a pivotal role in how their ecosystem functions. Keystone species maintain the local biodiversity of an ecosystem, influencing the abundance and type of other species in a habitat. They are nearly always a critical component of the local food web.

One of the defining characteristics of a keystone species is that it fills a critical ecological role that no other species can. Without its keystone species, an entire ecosystem would radically change—or cease to exist altogether. It’s important to note that a species’ role can change from one ecosystem to the next, and a species that is considered a keystone in one environment may not be considered the same in another.

Source: Shankar IAS

**Q.2) World Migratory Bird Day (WMBD) is an annual awareness-raising campaign highlighting the need for the conservation of migratory birds and their habitats. The campaign organized by which of the following?**

- a) Convention on the Conservation of Migratory Species of wild animals.
- b) Agreement on the Conservation of African – Eurasian Migratory water birds.
- c) UNEP
- d) Both A and B

**ANS: D**

**Explanation: World Migratory Bird Day (WMBD)** is an annual awareness-raising campaign highlighting the need for the conservation of migratory birds and their habitats. It has a global outreach and is an effective tool to help raise global awareness of the threats faced by migratory birds, their ecological importance, and the need for international cooperation to conserve them.

Every year people around the world take action and organize public events such as bird festivals, education programmes, exhibitions and bird-watching excursions to celebrate WMBD.

World Migratory Bird Day was initiated in 2006 by the Secretariat of the Agreement on the Conservation of African-Eurasian Migratory Water birds (AEWA) in collaboration with the Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals (CMS).

This year the **theme of World Migratory Bird Day** is **“Protect Birds: Be the Solution to Plastic Pollution!”** and will put the spotlight on the impact of plastic pollution on migratory birds and their habitats.

Source: Factly

**Q.3) Which of the following Convention has been adopted on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal?**

- a) Basel Convention
- b) Stockholm Convention
- c) Rotterdam Convention
- d) Vienna Convention

**ANS: A**

**Explanation:** The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal was adopted in 1989 and it came into force in 1992. It is the most comprehensive global environmental agreement on hazardous wastes and other wastes. With 175 Parties (as at 31 March 2011), it has nearly universal membership. The Convention aims to protect human health and the environment against the adverse effects resulting from the generation, trans-boundary movements and management of hazardous wastes and other wastes. The Basel Convention regulates the trans-boundary movements of hazardous wastes and other wastes and obliges its Parties to ensure that such wastes are managed and disposed of in an environmentally sound manner. The Convention covers toxic, poisonous, explosive, corrosive, flammable, eco-toxic and infectious wastes. Parties also have an obligation to minimize the quantities that are transported, to treat and dispose of wastes as close as possible to their place of generation and to prevent or minimize the generation of wastes at source.

Source: EPIC August 2021

**Q.4) Consider the following statements about vulture protection in India:**

1. Asia's first vulture conservation breeding centre is located in Haryana.
2. The only vulture sanctuary in India is located in Andhra 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: A**

**Explanation:** The Vulture Conservation Breeding Centre (VCBC) is a joint project of the Haryana Forest Department and the Bombay Natural History Society (BNHS). It is a collaborative initiative to save the three species of vultures, the White-backed, Long-billed and Slender-billed, from looming extinction.

- Subsequent to the release of the South Asia Vulture Recovery Plan in February 2004, the Vulture Care Centre was adapted and upgraded to being the first JCBC, in line



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with a key recommendation of the Recovery Plan to set up a conservation breeding programme for the three critically endangered Gyps species of vultures.

- Diclofenac implicated as the main cause of vulture decline
- The centre played an important role in confirming that diclofenac, a non-steroidal anti-inflammatory drug, given to cattle to treat pain and inflammation, was the main cause of vulture mortality and population crash in vultures.

The following are the important steps taken by Government for protection of Vultures in the country:

- Protection status of White backed, Long Billed and Slender Billed Vultures has been upgraded from Schedule IV to Schedule I of the Wild Life (Protection) Act, 1972.
- Bombay Natural History Society in collaboration with the Haryana State Forest Department has taken up a project on conservation breeding of vultures. A Vulture Captive Care facility has been established at Panchkula.
- Government of India has formulated a National Action Plan (2006) on Vulture Conservation. The Action Plan provides for strategies, actions for containing the decline of vulture population through ex-situ, in-situ vulture conservation.
- Captive breeding centres at Zoos at Bhopal, Bhubaneswar, Junagarh and Hyderabad have also been set up through Central Zoo Authority.
- Ramadevarabetta vulture sanctuary is the only vulture sanctuary in India, located in Karnataka.

Source: The Hindu

### **Q.5) Consider the following pollutants:**

1. Ozone
2. Nitrogen oxides
3. Volatile organic compounds
4. Mercury

**Which of the following above has given pollutants NOT primary pollutant?**

- a) 1 only
- b) 1 and 3 only
- c) 1, 3 and 4 only
- d) None

**ANS: A**

**Explanation:** Primary pollutants are any type of pollutant directly into the environment. They differ from secondary pollutants because secondary pollutants must form in the atmosphere, whereas primary pollutants do not. Primary pollutants can be emitted from many sources including cars, coal-fired power plants, natural gas power plants, biomass burning, natural forest fires, volcanoes, and many more. The effects of primary pollutants are of concern as they can be harmful to humans, animals and plants. Their contribution to the formation of secondary pollutants is also concerning, as this is what causes harmful ground level ozone to form, along with different smog's, especially in densely populated cities such as Los Angeles. The emission of primary pollutants has decreased considerably in the past years, due to improved regulations, technology and economic changes.

Types of primary pollutants include:

- Nitrogen oxides (NO<sub>x</sub>)
- Carbon monoxide(CO)
- Volatile organic compounds(VOCs)
- Sulfur oxides (SO<sub>x</sub>)



- Particulate matter(PM)
- Mercury

Source: Factly

**Q.6) Consider the following statements with respect to Kyoto Protocol:**

1. It is a binding agreement on parties.
2. Kyoto protocol entered into force on 2001.

**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:** The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets.

Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of –common but differentiated responsibilities.

The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the –Marrakesh Accords Its first commitment period started in 2008 and ended in 2012.

Source: The Hindu

**Q.7) Consider the following with respect to nutrients:**

1. Copper
2. Manganese
3. Zinc
4. Sulphur

**Which of the following above is NOT a micro nutrient?**

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

**ANS: C**

**Explanation:** The essential elements can be divided into macronutrients and micronutrients. Nutrients that plants require in larger amounts are called macronutrients. About half of the essential elements are considered macronutrients: carbon, hydrogen, oxygen, nitrogen, phosphorus, potassium, calcium, magnesium, and sulfur. The first of these macronutrients, carbon (C), is required to form carbohydrates, proteins, nucleic acids, and many other compounds; it is, therefore, present in all macromolecules. On average, the dry weight (excluding water) of a cell is 50 percent carbon, making it a key part of plant bio-molecules. Micronutrients: are needed in very small amounts. Their adequate concentrations in plants

are generally below the 100 parts per million (ppm) level. The essential micronutrients are zinc (Zn), iron (Fe), manganese (Mn), boron (B), chlorine (Cl), copper (Cu), molybdenum (Mo), cobalt (Co), vanadium (V), sodium (Na), and silicon (Si). Deficiencies of the last four minerals are very rare. Sodium is probably essential for only a few plants indigenous to saline soils. Silicon may be considered more of a secondary or macronutrient but it is –quasi-essential in that it has been shown to enhance growth in certain laboratory experiments but plants grown in its absence still thrived. Silicon is second only to oxygen in its abundance in soil because most soil mineral are silicates or aluminosilicates.

Source: Shankar IAS

**Q.8) Which of the following is a Flagship Species?**

- A species that plays an essential role in the structure, functioning or productivity of a habitat or ecosystem at a defined level.
- A species or group of species chosen as an indicator of, or proxy for, the state of an ecosystem or of a certain process within that ecosystem.
- A species to colonize bare earth after a disturbance or when the environment is too harsh to allow for colonization by other species.
- A species selected to act as an ambassador, icon or symbol for a defined habitat, issue, campaign or environmental cause.

**ANS: D**

**Explanation: Flagship species:**

A flagship species is a species selected to act as an ambassador, icon or symbol for a defined habitat, issue, campaign or environmental cause. By focusing on, and achieving conservation of that species, the status of many other species which share its habitat – or are vulnerable to the same threats - may also be improved. Flagship species are usually relatively large, and considered to be 'charismatic' in western cultures. Flagship species may or may not be keystone species and may or may not be good indicators of biological process.

Source: Shankar IAS

**Q.9) Consider the following organisms:**

- Algae
- Lichens
- Fungi

**Which of the above given organisms will colonize a bare rock?**

- 1 and 2 only
- 2 only
- 1 and 3 only
- 1, 2 and 3

**ANS: B**

**Explanation:** The Pioneer species are hardy species which are the first to colonize barren environments or previously biodiverse steady-state ecosystems that have been disrupted, such as by fire. Some lichens grow on rocks without soil, so may be among the first of life forms, and break down the rocks into soil for plants.

Examples of the plants and organisms that colonize such areas are pioneer species:

- Barren sand - lyme grass, sea couch grass, Marram grass
- Salt water - green algae, marine eel grass

**PRELIMS MARATHON COMPILATION FOR THE MONTH OF FEBRUARY (THIRD WEEK), 2022**

- Clear water - algae, mosses, freshwater eel grass
- Solidified lava flows - in Hawaii: swordfern, 'ōhi'a lehua, 'ohelo and 'āma'u
- Disturbed areas such as construction sites, road cuttings and verges, cultivated lands –
- Bare clay - Orchids
- Mountains - Lichens

Source: Shankar IAS

**Q.10) Consider the following statements with respect to Phansad Wildlife Sanctuary:**

1. Sanctuary located in Jharkhand State
2. Recently Wildlife researchers documented the presence of an Indian gaur in the Phansad Wildlife Sanctuary (PWS)

**Which of the following below given codes are correct?**

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

**ANS: B**

**Explanation:** Wildlife researchers recently documented the presence of an Indian gaur in the Phansad Wildlife Sanctuary (PWS) in Roha and Murud talukas of Raigad district. According to the Maharashtra forest department, this is the first time a sighting of this species of bison has been reported or documented at the sanctuary. The Indian Gaur is listed as Schedule I species under the Wildlife Protection Act, 1972 and is tagged as 'vulnerable' on the International Union for Conservation of Nature's (IUCN) Red List. Gaurs are the world's largest and tallest wild bovines, with 85% of their current population found in India. Male gaurs weigh 1,000-1,500kg, while females weigh 700-1,000kg. Their height ranges from 165-220cm (5 to 7ft).

Source: The Hindu

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## History

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**Q.1) Which of the following text mentions about agricultural activities during later vedic period?**

- a) Satapatha Brahamana
- b) Panchvimsa Brahamana
- c) Aiteraya Brahmana
- d) Jaiminiya Brahmana

**ANS: A**

**Explanation:** Agricultural activities increased during the Late Vedic period. The Satapatha Brahmana mentions rituals related to ploughing undertaken by the kings.

- This suggests the importance given to cultivation by the rulers, and the shift to agriculture to support the increasing population.
- The god Balarama is depicted with a plough, which suggests the importance of cultivation. The Vedic people cultivated barley and rice, and wheat.
- Wheat was the staple food of Punjab region. The Vedic people began to use rice in the Ganga-Yamuna doab. The use of rice, rather than wheat, is noticed in the Vedic rituals.

Source: Tamil Nadu state board class.

**Q.2) In which of the following states, Indian Institute of Heritage would be established?**

- a) Uttar Pradesh
- b) Gujarat
- c) Tamil Nadu
- d) West Bengal

**ANS: A**

**Explanation: About Indian Institute of Heritage:**

The government has decided to set up the 'Indian Institute of Heritage' at Noida, Gautam Buddha Nagar.

- It will be a world-class university that would focus on the conservation and research in India's rich tangible heritage, while offering research, development and dissemination of knowledge associated with heritage.
- It would also offer Masters and Ph. D courses in History of Arts, Conservation, Museology, Archival Studies, Archaeology, Preventives Conservation, Epigraphy and Numismatics, Manuscriptology etc. as well as conservation training facilities to in-service employees and the students of the Indian Institute of Heritage.
- This would be a standalone Institution of its type in the country and will have positive impact on higher education and research in the fields related to rich Indian heritage and its conservation.

Source: EPIC August 2021

**Q.3) The term 'Masland', recently seen in news is related to which of the following?**

- a) A fine quality mat
- b) Hand painted pottery of north eastern India
- c) Traditional ship building process
- d) Metal craft of Jharkhand

**ANS: A**

**Explanation: About Masland:**

- Madurkathi mats, or madur, are mats woven in West Bengal from a reed called madurkottir, or madurkathi, a sedge of the family Cyperaceae.
- Madur mat-making is a long-standing tradition, centred on the Medinipur district, and is an important part of the rural economy.
- Madur mats are made of natural fibres.
- The mats are woven mainly by weavers of the Mahishya caste, and predominantly by women.
- This cottage industry contributes significantly to village household income.
- The mats are non-conductive and sweat- absorbing, making them an essential household item in West Bengal's hot and humid climate.
- These mats are also used for religious purposes.
- On March 28, 2018, Indian Patent Office granted the Government of West Bengal a Geographical Indication (GI) Tag for madurkathi, under registration no. 567 in respect of handicrafts.
- 'Masland' a fine quality madur mat, which takes weeks to weave.
- During the 18th century, Masland mats flourished under royal patronage.
- In 1744, Nawab Alibardi Khan issued a charter to land-owning jagirdar in this regard, and as a result, it was obligatory to supply Masland mats for use in the Collectorate.

Source: EPIC August 2021

**Q.4) Which of the following temples has nine planetary temples in a group that are a "symbol of nine planets"?**

- a) Rudreswara Temple
- b) Narayankoti Temple
- c) Tara Tarini Temple
- d) Brihadisvara Temple

**ANS: B**

**Explanation: About Narayankoti Temple:**

- The temple is a group of ancient temples, about 2 km from Guptkashi on the Rudraprayag-Gaurikund highway.
- This is the only place in the country which has nine planetary temples in a group that are a "symbol of nine planets".
- It is devoted to Lakshmi Narayana who is associated with Pandavas.
- It is believed that these temples were constructed in the 9th century.

Source: EPIC August 2021



**Q.5) Consider the following statements about Sree Narayana Guru:**

1. He was a catalyst and leader from Tamil Nadu.
2. He is founder of the Sree Narayana Dharma Paripalana Yogam (SNDP) 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: A

Explanation: **About Sree Narayana Guru**

- Sree Narayana Guru was a catalyst and leader from Kerala who reformed the oppressive caste system that prevailed in society at the time whose philosophy always advocated social equality, education for all, and spiritual enlightenment.
- Born in the Ezhava caste, Narayan Guru had experienced discrimination from the upper caste of society.
- One of his famous sayings in Malayalam was 'One caste, one religion, one god for all.'
- Narayana Guru consecrated the first temple of Lord Shiva in 1888 where an idol was ordained by a non-brahmin in Aruvippuram village of Kerala sparking off the anti-caste revolution against the upper-caste Brahmin communities.
- Later, in 1903, he established the Sree Narayana Dharma Paripalana Yogam (SNDP) organization as the founder and president that continues to mark its strong presence to this day.
- The famous 'Vaikom Satyagraha' protest movement against caste discrimination and untouchability abolished untouchability and inequality.
- Hence, this day is quite important in Kerala and is observed as a public holiday.
- The Sivagiri pilgrimage was established in 1924 to promote the virtues of cleanliness, education, devotion, agriculture, handicrafts, and trade.
- His philosophy and teachings are a way of life for the people of Kerala.
- He passed away on September 20, 1928.

Source: EPIC August 2021

**Q.6) The third Buddhist Council convened at the time of Ashoka was held at which of the following places?**

- a) Gandhara
- b) Ujjain
- c) Amaravati
- d) Patliputra

ANS: D

**Explanation:** One of the major events of Ashoka's reign was the convening of the Third Buddhist sangha (council) in 250 BCE in the capital Pataliputra.

- Ashoka's deepening commitment to Buddhism meant that royal patronage was extended to the Buddhist establishment.
- An important outcome of this sangha was the decision to expand the reach of Buddhism to other parts of the region and to send missions to convert people to the religion.

Source: Tamil Nadu state board class 11.



**Q.7) Which of the following is the philosophy propounded by Adi Sankara?**

- a) Advaita
- b) Dvaita
- c) Shudh dvaita
- d) Visistavaita

**ANS: A**

**Explanation:** Fundamentally, Sankara's Advaita or non-dualism had its roots in Vedanta or Upanishadic philosophy.

- His attempts to root out Buddhism and to establish smarta (traditionalist) mathas resulted in the establishment of monasteries in different places viz., Sringeri, Dvaraka, Badrinath, and Puri, which were headed by Brahmin pontiffs.
- Sankara looked upon Saiva and Vaishnava worship as two equally important aspects of the Vedic religion.
- Monastic organization and preservation of Sanskrit scriptures were the two major thrusts of Sankara School.

Source: The Hindu

**Q.8) Which of the following Indo-Greek King erected a pillar or garuda-dhvaja with its capital adorned by a figure of Garuda, in honour of God Krishna (Vaasudeva)?**

- a) Heliodorus
- b) Menander
- c) Demetrius II
- d) Euthydemus

**ANS: A**

**Explanation:** Another Indo-Greek king whose name is remembered is Antialcidas (or Antialkidas), c. 110.

- He is known to us primarily because his emissary, Heliodorus, who was sent to the court of King Bhagabhadra erected a pillar or garudadhvaja with its capital adorned by a figure of Garuda, in honour of God Krishna (Vasudeva).
- Heliodorus had evidently become a follower of Vishnu. (The pillar stands in isolation in the middle of an open ground in Vidisha, Madhya Pradesh.)

Source: Tamil Nadu state board.

**Q.9) Consider the following pairs of terms related to Bahmani Kingdom:**

<b>Term</b>	<b>Meaning</b>
1. Vakil-us-saltana	lieutenant of the kingdom
2. Kotwal	Minister of Finance
3. Wasir-i-ashraf	Chief of Police

**Which of the above given pair is/are correctly matched?**

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

**ANS: A**

**Explanation:** In order to facilitate smooth administration, as followed in the Delhi Sultanate, Bahman Shah divided the kingdom into four territorial divisions called tarafs, each under a governor.

Each governor commanded the army of his province (Gulbarga, Daulatabad, Bidar, and Berar) and was solely responsible for both its administration and the collection of revenue.

Mohammed I appointed a council of eight ministers of state:

1. Wakil-us-saltana or lieutenant of the kingdom, the immediate subordinate of the sovereign.
2. Waziri-kull, who supervised the work of all other ministers;
3. Amir-i-jumla, minister of finance;
4. Wasir-i-ashraf, minister of foreign affairs and master of ceremonies;
5. Nazir, assistant minister for finance;
6. Peshwa who was associated with the lieutenant of the kingdom;
7. Kotwal or chief of police and city magistrate in the capital, and
8. Sadr-i-jahan or chief justice and minister of religious affairs and endowments.

Source: Tamil Nadu state board.

**Q.10) Arrange the following battles fought by Babur in chronological order:**

1. Battle of Chanderi
2. Battle of Panipat
3. Battle of Khanwa

**Select the correct answer using the codes given below:**

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

**ANS: B**

**Explanation:** First Battle of Panipat, 21 April 1526: Babur then turned towards the Lodi governed Punjab. After several invasions, he defeated the formidable forces of Ibrahim Lodi with a numerically inferior army at Panipat. Babur won this battle with the help of strategic positioning of his forces and the effective use of artillery.

- Battle of Khanwa, 1527: Babur decided to take on Rana Sanga of Chittor, who as ruler of Mewar, had a strong influence over Rajasthan and Malwa. Babur selected Khanwa, near Agra, as a favourable site for this inevitable encounter.
- Battle of Chanderi, 1528: The next significant battle that ensured Babur's supremacy over the Malwa region was fought against Medini Rai at Chanderi.

Following this victory Babur turned towards the growing rebellious activities of Afghans.

Source: Tamil Nadu state board.