

ForumIAS

F

Prelims Marathon

29th Aug to 4th Sep, 2022

*HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT*

FORUMIAS



Environment

Q.1) Consider the following statements about International Solar Alliance (ISA):

1. It is a special platform for mutual cooperation among solar resource rich countries lying above and below Tropic of Cancer and Tropic of Capricorn respectively.
2. The ISA secretariat will be set up in National Institute of Solar Energy, Gurgaon.

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: International Solar Alliance:

- International Solar Alliance (ISA) is launched at the CoP21 Climate Conference in Paris on 30th November as a special platform for mutual cooperation among 121 solar resource rich countries lying fully or partially between Tropic of Cancer and Tropic of Capricorn.
- The alliance is dedicated to address special energy needs of ISA member countries.
- International Agency for Solar Policy and Application (IASPA) will be the formal name of International Solar Alliance.
- The ISA secretariat will be set up in National Institute of Solar Energy, Gurgaon.

Objectives

1. to force down prices by driving demand;
2. to bring standardization in solar technologies
3. to foster research and development.

Prime Minister coined the new term “Surya Putra” for all the nations which fall between Tropic of Cancer and Tropic of Capricorn, and which have been invited to join the alliance. The other term used for these countries is “Sunshine Countries”.

Source: ShankarIAS

Q.2) Consider the following statements about International Renewable Energy Agency (IRENA):

1. It is a non-governmental organisation that supports countries in their transition to a sustainable energy future.
2. It is headquartered in Abu Dhabi.

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: International Renewable Energy Agency (IRENA):

- IRENA has 150 member nations with Headquarters in Abu Dhabi.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- The International Renewable Energy Agency (IRENA) is an intergovernmental organisation that supports countries
- in their transition to a sustainable energy future, and serves as the principal platform for international cooperation, a centre of excellence, and a repository of policy, technology, resource and financial knowledge on renewable energy.
- IRENA promotes the widespread adoption and sustainable use of all forms of renewable energy, including bioenergy, geothermal, hydropower, ocean, solar and wind energy in the pursuit of sustainable development, energy access, energy security and low-carbon economic growth and prosperity.

Source: ShankarIAS

Q.3) The process in which the organic material is heated in the absence of air until the molecules thermally break down to become a gas comprising smaller molecules is known as?

- a) Combustion
- b) Biomethanation
- c) Pyrolysis
- d) None of the above

ANS: C

Explanation: Pyrolysis/Gasification:

- Pyrolysis is a process of chemical decomposition of organic matter brought about by heat.
- In this process, the organic material is heated in the absence of air until the molecules thermally break down to become a gas comprising smaller molecules (known collectively as syngas).
- Gasification can also take place as a result of partial combustion of organic matter in the presence of a restricted quantity of oxygen or air.
- The gas so produced is known as producer gas. The gases produced by pyrolysis mainly comprise carbon monoxide (25%), hydrogen and hydrocarbons (15%), and carbon dioxide and nitrogen (60%). The next step is to 'clean' the syngas or producer gas. Thereafter, the gas is burned in internal combustion (IC) engine generator sets or turbines to produce electricity.

Source: ShankarIAS

Q.4) Consider the following statements about Geothermal Energy:

1. It refers to harnessing of the vast reservoir of heat stored in the earth's inner core.
2. Heat energy is produced mostly from the decay of naturally radioactive materials.

Which of the statements given above is/are correct?

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

ANS: C

Explanation: Geothermal Energy:

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- Geothermal generation refers to harnessing of the geothermal energy or the vast reservoir of heat stored in the earth's inner core.
- Below the earth's crust, there is a layer of hot and molten rock called 'magma'. Heat is continually produced there, mostly from the decay of naturally radioactive materials such as uranium and potassium.

Source: ShankarIAS

Q.5) Consider the following statements with respect to 20th Livestock census:

1. According to the census, Stray cattle in the country increased marginally.
2. Census conducted for every 2 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: D

Explanation:

- The number of stray cattle in the country has marginally come down to 50.22 lakh in 2019 from 51.88 lakh in 2012 — a decline of 3.2 per cent — according to the latest data of the 20th Livestock Census released by the Ministry of Animal Husbandry, Dairying and Fisheries.
- While the data shows a decline at the national level, there is substantial increase in stray cattle population in states such as Uttar Pradesh (17.34 per cent), Madhya Pradesh (95 per cent), Rajasthan (34.48 per cent), Gujarat (17.59 per cent), Chhattisgarh (33.93 per cent) and Punjab (38.69 per cent) in 2019 in comparison to 2012.
- However, in some states, a sharp decline has been registered in the stray cattle population. These include Odisha (86.68 per cent decline), West Bengal (73.59 per cent), Bihar (66.54 per cent) and Tamil Nadu (23.95 per cent). Census Conducted Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry and Dairying. Conducted quinquennially (every five years) since 1919-20. Covers all domesticated animals and its headcounts.

Source: <https://pib.gov.in/PressReleaseframePage.aspx?PRID=1813802>

Q.6) In the earth's atmosphere, which of the following have the property of absorbing the heat and contribute to the warming of atmosphere?

1. Carbon Dioxide
2. Soot
3. Water Vapour

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

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

Explanation:

- Greenhouse gas, any gas that has the property of absorbing infrared radiation (net heat energy) emitted from Earth's surface and reradiating it back to Earth's surface, thus contributing to the greenhouse effect.
- Carbon dioxide, methane, and water vapour are the most important greenhouse gases. (To a lesser extent, surface-level ozone, nitrous oxides, and fluorinated gases also trap infrared radiation.)
- Greenhouse gases have a profound effect on the energy budget of the Earth system despite making up only a fraction of all atmospheric gases.
- Concentrations of greenhouse gases have varied substantially during Earth's history, and these variations have driven substantial climate changes at a wide range of timescales. In general, greenhouse gas concentrations have been particularly high during warm periods and low during cold periods.
- These gases have a high capacity for absorbing infrared radiation or occur in significant quantities, whereas others have considerably lower capacities for absorption or occur only in trace amounts.

Source: <https://climate.mit.edu/ask-mit/how-do-greenhouse-gases-trap-heat-atmosphere#:~:text=Greenhouse%20gas%20molecules%20in%20the,raises%20the%20planet's%20average%20temperature.>

Q.7) Which of the following is definition of a 'cold day' as per India Meteorological Department (IMD)?

- a) A day when maximum temperature is at least 6.5°C below normal.
- b) A day when the minimum temperature is at least 6.5°C above normal.
- c) A day when the maximum temperature during the day is at least 4.5°C above normal.
- d) A day when the maximum temperature during the day is at least 4.5°C below normal.

ANS: D

Explanation:

- The IMD is the national meteorological service of the country and it is the chief government agency dealing in everything related to meteorology, seismology and associated subjects. It was formed in 1875. The IMD is under the Ministry of Earth Sciences, Government of India.
- Cold Day: A cold-day condition is said to prevail when the maximum temperature during the day is at least 4.5°C below normal.
- Severe Cold Day: If the maximum temperature is at least 6.5°C below normal, it is classified as a severe cold day.
- Cold wave: Cold wave is characterized by a rapid and marked fall of temperature. The term 'cold' describes an unusual fall in temperature that is triggered by the transport of cold air masses into a specific area.
- The "wave" in cold wave is apparent in the upper-air flow (the jetstream), which is usually amplified into a strong ridge-trough pattern during a major cold outbreak. Cold waves affect much larger areas than blizzards, ice storms, and other winter hazards.

Source: <https://economictimes.indiatimes.com/news/india/cold-day-cold-wave-conditions-to-grip-northwest-india-this-week-imd/articleshow/89094938.cms?from=mdr>

Q.8) Consider the following statements about 'Carbon Credit':

1. A carbon credit is a tradable permit.
2. The holder of the credit has the right to emit ten ton of carbon dioxide or an equivalent of another greenhouse gas.
3. The main goal for the creation of carbon credits is the reduction of emissions of carbon dioxide and other greenhouse gases.

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:

- A carbon credit is a tradable permit or certificate that provides the holder of the credit the right to emit one ton of carbon dioxide or an equivalent of another greenhouse gas.
- The main goal for the creation of carbon credits is the reduction of emissions of carbon dioxide and other greenhouse gases from industrial activities to reduce the effects of global warming.
- Carbon credits are market mechanisms of the minimization of greenhouse gases emission. The introduction of carbon credit was ratified in the Kyoto Protocol.
- The Paris Agreement validates the application of carbon credits to reduce emissions of the greenhouse gases and sets the provisions for the further facilitation of the carbon credits markets.

Types of Carbon Credits

There are two types of the carbon credits:

- **Voluntary emissions reduction (VER):** A carbon offset that is exchanged in the over-the-counter or voluntary market for credits.
- **Certified emissions reduction (CER):** Emission units (or Carbon credits) created through a regulatory framework with the purpose of offsetting a project's emission. The main difference between the two is that there is a third party certifying body that regulates the CER as opposed to the VER.

Source: https://www.business-standard.com/podcast/current-affairs/what-are-carbon-credits-122033100080_1.html

Q.9) The Cartagena Protocol on Biosafety is related to which of the following?

- a) To ensure the safe handling, transport and use of living modified organisms (LMOs)
- b) The fair and equitable sharing of benefits arising from the utilization of genetic resources.
- c) To Abate Acidification, Eutrophication and Ground-level Ozone
- d) To reduce Chlorofluro Carbons (CFCs)

ANS: A

Explanation:

- The Cartagena Protocol on Biosafety to the Convention on Biological Diversity is an international agreement which aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- It was adopted on 29 January 2000 and entered into force on 11 September 2003.
- The Protocol seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology.
- It establishes an advance informed agreement (AIA) procedure for ensuring that countries are provided with the information necessary to make informed decisions before agreeing to the import of such organisms into their territory.
- The Protocol contains reference to a precautionary approach and reaffirms the precaution language in Principle 15 of the Rio Declaration on Environment and Development. The Protocol also establishes a Biosafety Clearing-House to facilitate the exchange of information on living modified organisms and to assist countries in the implementation of the Protocol.

Source: <https://bch.cbd.int/protocol>

Q.10) Which of the following International institution released the Emissions Gap report?

- a) UNDP
- b) UNFCCC
- c) UNEP
- d) Global Environment Facility

ANS: C

Explanation:

- As the world strives to cut greenhouse gas emissions and limit climate change, it is crucial to track progress towards globally agreed climate goals.
- For a decade, UNEP's Emissions Gap Report has compared where greenhouse gas emissions are heading against where they need to be, and highlighted the best ways to close the gap.
- The report presents the latest data on the expected gap in 2030 for the 1.5°C and 2°C temperature targets of the Paris Agreement.
- It considers different scenarios, from no new climate policies since 2005 to full implementation of all national commitments under the Paris Agreement. For the first time, it looks at how large annual cuts would need to be from 2020 to 2030 to stay on track to meeting the Paris goals.

Source: <https://www.unep.org/resources/emissions-gap-report-2021>

History

Q.1) Consider the following pairs:

Term	Definition
1. Upanishads	Philosophical Enquires
2. Brahmana	Forest Texts
3. Samhita	Vedic Hymns

How many of the above given pairs is/are correctly matched?

- One pair only
- Two pairs only
- All three pairs
- None of the above

ANS: B

Explanation: Literature of the Vedic Age:

- The main collections of Vedic hymns are called samhitas. The Rig Vedicsamhita is the earliest text.
- The Rig Veda is dated to between 1500 and 1000 BCE. The Rig Veda contains 10 books. Books 2 to 7 are the earliest and the Books 1, 8, 9 and 10 are assigned to a later period.
- Samhitas are ritualistic texts, and they explain the social and religious importance of rituals. Each samhita has added texts called brahmanas, which have commentaries on the hymns and rituals.
- Each brahmana has an aranyaka (forest text) and an upanishad. The aranyakas contain mystical ritual instructions to be undertaken in secret by the sages who live in the forests. Upanishads deal with philosophical enquiries.
- The Yajur, Sama and Atharva Vedas are dated to a slightly later period. The samhitas of the Sama, Yajur and Atharva Vedas, and the brahmanas, aranyakas and upanishads attached to the Vedas are the Late Vedic texts.
- The Sama Veda was composed in musical notes which are considered to constitute the basis of Indian music. The Yajur Veda has rituals and hymns. The Atharva Veda contains charms and magical spells.

Source: Tamil Nadu Board Class 11

Q.2) Which of the following statement about Atharva Veda is correct?

- It is composed in Musical Notes.
- It contains detailed rituals and hymns.
- It is the earliest vedic text.
- It contains charms and magical spells.

ANS: D

Explanation: Vedic Literature:

- The word 'Veda' is derived from the root 'vid', which means to know. In other words, the term 'Veda' signifies 'superior knowledge'. The Vedic literature consists of the four Vedas – Rig, Yajur, Sama and Atharva.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- The Rig Veda is the earliest of the four Vedas and it consists of 1028 hymns. The hymns were sung in praise of various gods. The Yajur Veda consists of various details of rules to be observed at the time of sacrifice.
- The Sama Veda is set to tune for the purpose of chanting during sacrifice. It is called the book of chants and the origins of Indian music are traced in it. The Atharva Veda contains details of rituals.

Source: Tamil Nadu Board Class 11

Q.3) Which of the following statement about Ochre Coloured Pottery Ware Culture is/are correct?

1. It is also known as 'Copper Hoard Culture'.
2. It is an urban culture.

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: Ochre Coloured Pottery Ware Culture:

- Ochre Coloured Pottery Ware culture is found in northern India dating to the Chalcolithic period. The OCP pottery has red slip and appears ochre in colour (the ochre colour comes off when the pottery is touched) and hence, it is called Ochre Coloured Pottery.
- It has black painted designs. The OCP comes in the form of jars, storage jars, bowls, and basins. The OCP culture dates to 2600- 1200 BCE and is found in the IndoGangetic plain and may have had some associations with early Vedic culture.
- The OCP culture is seen as an impoverished Harappan culture and some scholars see it as unrelated to the Harappan culture. The OCP sites produced copper figures and objects and therefore it is also known as "copper hoard culture."
- It is a rural culture and has evidence of the cultivation of rice, barley, and legumes. They also had pastoralism with evidence of cattle, sheep, goats, pigs, horses, and dogs. The villages had wattle-and-daub houses. They used copper and terracotta ornaments. Animal figurines have also been found.

Source: Tamil Nadu Board Class 11

Q.4) Iron Age in North India coincides with which of the following?

- a) Painted Grey Ware Culture
- b) Ochre Coloured Pottery Ware Culture
- c) Black and Red Ware Culture
- d) Northern Black Polished ware culture

ANS: A

Explanation: Iron Age in North India:

- The Iron Age in North India coincides with the painted Grey Ware culture. The painted grey ware is dated to from 1100 to 800 BCE. More than 1000 sites have been identified with painted grey ware pottery in northern India, with a major concentration in the

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

Ganga-Yamuna valley. These ceramics succeeded the Black and Red Ware Culture in the eastern Ganga valley and Central India.

- The pottery was fine grey in colour with painted geometric designs. The painted grey ware laid the foundation of the early political formations. It correlates with the Kuru-Panchala kingdom known from the Vedic texts. The Painted Grey Ware cultural phase is followed by Northern Black Polished Ware culture (NBPW), which is associated with the Mahajanapada and Mauryan periods.

Source: Tamil Nadu Board Class 11

Q.5) Consider the following statements about Megalithic Sites in Tamil Nadu:

1. Kodumanal Site is located on the northern bank of Noyyal River.
2. The burial mounds at Adichanallur yielded only gold ornaments and has no evidence of stone beads.

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: Adichanallur:

The burial mound at Adichanallur yielded the following: „

- Urns and pottery of various kinds in large numbers. „
- Iron implements, including spades and weapons (daggers, swords, spears and arrows). Some stone beads and a few gold ornaments „
- Bronze objects representing the domestic animals such as buffalo, goat or sheep and cock, and wild animals like tiger, antelope and elephant. „
- Traces of cloth and wood.
- Paiyampalli is a village in Tirupathur taluk, Vellore district. The Archaeological Survey of India carried out an excavation in the 1960s and unearthed black and red ware pottery in this megalithic site. A large number of urn burials were also found in this region. The date of this culture, based on radio carbon dating, is 1000 BCE.
- Kodumanal, 40 km from Erode, is located on the northern bank of Noyyal River, a tributary of the Cauvery. A series of excavations were carried out during the 1980s and 1990s. The most recent was in 2012. In habitation trenches and megalithic burials of Kodumanal, the goods unearthed included pots, weapons, tools, ornaments, and beads, particularly carnelian, akin to those found at Mohenjodaro. Since carnelian was not known to this region in ancient times, it may have been brought to Kodumanal from outside.

Source: Tamil Nadu Board Class 11

Q.6) Which of the following statements about Rig Vedic Culture is/are correct?

1. Varna was the term used by Aryans to refer to colour and category.
2. The Dasas and Dasyus were conquered and treated as slaves.

Select the correct answer using the codes given below:

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

ANS: C

Explanation: Social Divisions:

- The Vedic people distinguished themselves from the non-Aryan people. Varna was the term used by Aryans to refer to colour and category. The Rig Veda refers to Arya varna and Dasa varna.
- The Dasas and Dasyus were conquered and treated as slaves. They came to be considered sudras in the later period. Social classes were classified as warriors, priests and common people.
- Sudras as a category of people appeared at the end of the Rig Vedic period. Slavery was common and slaves were given as gifts to the priests, but there is no reference to wage labour. Horse-drawn chariots and bronze objects were possessed by a few, suggesting social distinction.
- Vedic society was largely egalitarian initially, and social distinctions emerged later. According to the Purusha Sukta of the Rig Veda the various varnas emerged thus: Brahmanas from the mouth, the kshatriya from the arms, the vaisya from the thighs and the sudra from the feet of Purusha, when he was sacrificed.
- These social divisions are considered to have arisen towards the end of the early Vedic period. Various professional groups such as warriors, priests, cattle-keepers, farmers, barbers are also mentioned. Panis were itinerant traders or perhaps caravan traders. Panis are also seen as enemies in some verses.

Source: Tamil Nadu Board Class 11

Q.7) Consider the following pairs:

Term	Meaning
1. Kshetra	Field
2. Krishi	Farmer
3. Sita	Furrow created by ploughing
4. Yavam	Barley

How many pairs is/are correctly matched?

- a) One pair only
- b) Two pairs only
- c) Three pairs only
- d) All four pairs

ANS: B

Explanation: Economy: Agriculture

- Archaeological evidence points to the development of agriculture among the Rig Vedic people. The ploughshare is mentioned in the Rig Vedas.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- The field was known as kshetra and the term krishi referred to ploughing. The terms langla and sura referred to plough and the term sita meant the furrow created by ploughing.
- Water for irrigation was probably drawn from wells by cattedriven water-lifts using pulleys. They had knowledge of different seasons, sowing, harvesting and thrashing. They cultivated barley (yavam) and wheat (godhuma).

Source: Tamil Nadu Board Class 11

Q.8) Which of the following pair is/are correctly matched?

Term	Used for
1. Ayas	Copper and Bronze
2. Nishka	Gold/Silver ornament
3. Takshan	Carpenters
4. Gavishthi	War

Select the correct answer using the codes given below:

- 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: D

Explanation: Pastoralism:

- Cattle rearing was an important economic activity for the Aryans, although they practiced agriculture. Cattle were considered wealth.
- The term for war in the Rig Veda was gavishthi which means search for cows (which is the contemporary term (goshti) for factions as well).
- The donations to the priests were mainly cows and women slaves but not land, which reveals the importance of pastoralism. There was no private property in land.

Craft Production

- The Rig Veda mentions artisans such as carpenters, chariot-makers, weavers and leather-workers. Copper metallurgy was one of the important developments of this period.
- The term ayas in the Rig Veda refers to copper and bronze. Karmara, smith, is mentioned in the Rig Veda. Likewise, there are references to siri or yarn, indicating spinning which was done by women and to carpenters, takshan.
- Weaving of clothes of wool is also referred to and obviously it was necessary in the cold weather. Some of the crafts were fulltime crafts, involving specialists.

Trade, Exchange and Redistribution

- Trading activities were limited though traders were present during the Early Vedic period. Panis are referred to as traders and they were perhaps caravan traders. The word pan means barter, which was a mode of exchange.
- Nishka was a gold or silver ornament used in barter. A priest received 100 horses and 100 nishka as fee for sacrifices. The danas and dakshinas offered to people were means of redistributing resources.
- The dakshina was both a fee for a specific service and also a means of distributing wealth. The distribution of cows helped spread pastoral activities and economic production.

Source: Tamil Nadu Board Class 11

Q.9) Which of the following statement is/are not correct?

- a) Senani was the chief of army.
- b) People made compulsory contribution called bali to the king.
- c) The officer who controlled the territory was called Vrajapati.
- d) Gramini was the head of the village and fighting unit.

ANS: B

Explanation: Polity and Administration:

- The purohita or priest offered advice to the king. Vedic priests advised the kings, inspired them and praised their deeds. In turn they received rewards for their services.
- Senani was the chief of army. There is no evidence of tax collecting officers. Perhaps people made voluntary contribution called bali to the king. Some scholars say that bali was an imposed tax, and not voluntary.
- There is no reference to the administration of justice. The officer who controlled the territory was called Vrajapati. He helped the kulapas or heads of fighting groups called gramini. Gramini was the head of the village and fighting unit.

Source: Tamil Nadu Board Class 11

Q.10) With reference to vedic religion, consider the following statement:

1. Soma was the god of plants.
2. Maruts was the god of strength.

Which of the statement given above is/are correct?

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

ANS: C

Explanation: Vedic Religion and Rituals:

- Religion and rituals played an important role in Vedic society. In the Rig Veda, the natural forces sun, moon, rivers, mountains and rains were defined as divinities. The religion was naturalistic and polytheistic.
- Indra was the most important god and he was called Purandara. Agni was seen as intermediary between god and people. Surya was a god who removed darkness. Ushas was the goddess of dawn. Aditi, Prithvi and Sinivali are other goddesses. Varuna, the god of water was next in importance.
- This god was the upholder of natural order. Soma was the god of plants and the drink was named after him. Soma drink was part of the ritual and the preparation of this intoxicating drink is explained in many hymns.
- Maruts was the god of strength. Interestingly there are few references to Rudra or Siva. Rituals were adopted as a solution to many issues and the problems of day-to-day life and thus the priests had an important role in the society.

Source: Tamil Nadu Board Class 11

Schemes/ Programmes/ Institution

Q.1) Consider the following statements about BioNEST Scheme:

1. It stands for Bio-Incubators Nurturing Entrepreneurship for Scaling Technologies.
2. It has been launched by Biotechnology Industry Research Assistance Council (BIRAC).

Which of the above given statement is/are correct?

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

ANS: C

Explanation: BioNEST Scheme

- BioNEST stands for Bio-Incubators Nurturing Entrepreneurship for Scaling Technologies.
- It has been launched by Biotechnology Industry Research Assistance Council (BIRAC).
- Its aim is to foster the biotech innovation ecosystem in the country by creating globally competent bio-incubation facilities across the country.

Source: ForumIAS EPIC May 2022

Q.2) The Jan Andolan for 'Garbage Free Cities' has been launched by which of the following?

- a) Ministry of Housing and Urban Affairs
- b) Ministry of Health and Family Welfare
- c) NITI Aayog
- d) Ministry of Science and Technology

ANS: A

Explanation: National Behaviour Change Communication Framework for Garbage Free Cities

- It has been launched by the Ministry of Housing and Urban Affairs under Swachh Bharat Mission: Urban 2.0.
- Its aim is to strengthen the ongoing Jan Andolan for 'Garbage Free Cities'.
- The framework serves as a guiding document and blueprint for States and Cities to undertake large scale multimedia campaigns along with intensive and focused interpersonal communication campaigns.
- The framework focuses on intensifying messaging around the key focus areas of source segregation, collection, transportation, and processing of waste, plastic waste management etc.

Source: ForumIAS EPIC May 2022

Q.3) Azadi Ki Amrit Kahaniya has been launched by the Ministry of Information and Broadcasting (I&B) in collaboration with which of the following OTT platform?

- a) Netflix
- b) Hotstar
- c) Voot
- d) Yupp TV

ANS: A

Explanation: Azadi Ki Amrit Kahaniya

- It has been launched by the Ministry of Information and Broadcasting (I&B) in collaboration with the OTT platform Netflix.
- Its aims are to bring out stories of inspirational Indians on various themes including Women Empowerment, Environment & Sustainability and others.
- In the 1st phase, short videos featuring Women Change-makers from across the country will be released.
- These include:
 - Poonam Nautiyal, a healthcare worker who walked miles across the Bageshwar district in Uttarakhand to vaccinate people for COVID-19 vaccine;
 - Tessy Thomas, the first woman scientist to head a missile project in India;
 - Tanvi Jagadish, India's first competitive woman stand-up paddle boarder among others.

Source: ForumIAS EPIC May 2022

Q.4) The foundation stone for the India International Center for Buddhist Culture & Heritage has been laid down in which of the following country?

- a) Bhutan
- b) Veitnam
- c) Nepal
- d) Srilanka

ANS: C

Explanation: India International Center for Buddhist Culture & Heritage

- The Prime Minister of India laid the foundation stone for the India International Center for Buddhist Culture & Heritage in Lumbini, Nepal.
- It will be constructed by the International Buddhist Confederation (IBC) with the financial support of the Ministry of Culture, Government of India.
- The Center is being created with the view to promote Buddhist philosophy and teachings of Gautama Buddha.
- This Buddhist Centre will be the first 'Net Zero Emission' building in Nepal.

Source: ForumIAS EPIC May 2022

Q.5) Which of the following statement about National Film Heritage Mission (NFHM) is/are correct?

1. It was launched by Ministry of Culture.
2. Its aim is to preserve, restore and digitize India's cinematic heritage.

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: National Film Heritage Mission (NFHM)

- It was launched in 2016 by the Ministry of Information & Broadcasting.
- Its aim is to preserve, restore and digitize India's cinematic heritage.
- It is being implemented by the National Film Archives of India (NFAI).
- It is one of the world's largest film preservation missions.
- NFAI was setup in 1964 as a media unit of the Ministry of Information & Broadcasting.
- It is headquartered in Pune, Maharashtra.

Source: ForumIAS EPIC May 2022

Q.6) Malcha Mahal, recently seen in news is located at which of the following places?

- a) Amritsar
- b) Agra
- c) Delhi
- d) Jhansi

ANS: C

Explanation: Malcha Mahal

- The Delhi government is about to renovate this 14th-century monument.
- It is located in Chanakyapuri in Delhi. It was built in 1325 by Sultan Firoz Shah Tughlaq and was used as a hunting lodge for a long time. It later became the residence of the descendants of the Nawab of Awadh.
- It came to be known as 'Wilayat Mahal' after Begum Wilayat Mahal of Awadh who claimed that she was a member of the royal family of Oudh.
- She was given the palace by the government in 1985.
- The monument is not ASI-protected and, therefore, no attention was paid to it in all these years in order to conserve it.

Source: ForumIAS EPIC May 2022

Q.7) With reference to Microprocessor Development Program, which of the following statement is/are correct?

1. Its aim is to enable the creation of Microprocessors, and achieve industry-grade silicon and Design wins by December 2023.
2. Center for Development of Advanced Computing (CDAC) have developed two microprocessors named Vega (32-bit) and Shakti (64-bit) respectively.

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: Digital India RISC-V Microprocessor (DIR-V) Program

- It has been launched by the Ministry of Electronics and Information Technology.
- Its aim is to enable the creation of Microprocessors, and achieve industry-grade silicon and Design wins by December 2023.
- It will promote partnerships between Start-ups, Academia & Multinationals to make India a supplier of RISC-V SoC (System on Chips) for Servers, Mobile devices, Automotive, IoT & Microcontrollers.
- IIT Madras and the Center for Development of Advanced Computing (CDAC) have developed two microprocessors named Shakti (32-bit) and Vega (64-bit) respectively under the Microprocessor Development Program.

Source: ForumIAS EPIC May 2022

Q.8) National Open Access Registry (NOAR) is related to which of the following?

- a) Power Sector
- b) Education
- c) Health
- d) Pharmaceutical

ANS: A

Explanation: National Open Access Registry (NOAR)

- It has successfully gone live from 1st May 2022.
- It has been launched by the Ministry of Power.
- It is a centralized online platform through which short-term open access to the interstate transmission system is being managed.
- The platform is accessible to all stakeholders including open access participants, traders, power exchanges, and national/regional/state load despatch centres.
- NOAR is the key to facilitate faster electricity markets and enable the integration of Renewable Energy (RE) resources into the grid.

Source: ForumIAS EPIC May 2022

Q.9) The permanent secretariat of Association of World Election Bodies is located in which of the following countries?

- a) South Korea
- b) India
- c) France
- d) Australia

ANS: A

Explanation: Association of World Election Bodies

- It is the largest association of Election Management Bodies (EMBs) worldwide.
- It was established in 2013.
- The permanent secretariat is located in Seoul, South Korea.
- At present, it has 118 EMBs as Members & 20 Regional Associations/Organisations as Associate Members.
- It was established with the vision of achieving sustainable democracy around the world.
- A-WEB undertakes Election Visitor and Observation Programmes in various countries to study various election management practices and share knowledge with other Member of EMBs.

Source: ForumIAS EPIC May 2022

Q.10) Macolin Convention is related to which of the following?

- a) Gender Equality
- b) Justice
- c) Sports
- d) Ukraine War

ANS: C

Explanation: Macolin Convention

- The Council of Europe Convention on the Manipulation of Sports Competitions better known as the Macolin Convention is a multilateral treaty that aims to prevent, detect, and punish match-fixing in sports.
- The convention was concluded in Macolin, Switzerland in 2014.
- A major focus of the convention is to prevent and punish illegal sports betting operations and to prevent conflicts of interest between legal sports betting operators and sports organizations.
- The 12th meeting of Interpol's Match-Fixing Task Force (IMFTF) concluded with a call to harmonize global efforts to curb competition manipulation.
- Central Bureau of Investigation (CBI) was one of the participants at this meeting.

Source: ForumIAS EPIC May 2022

Science and Technology

Q.1) At which of the following area of space, the James Webb Space Telescope orbits?

- a) Lagrange point L2
- b) Curie Point
- c) Newton Point
- d) CV Raman Point

ANS: A

Explanation:

- James Webb Space Telescope reached its final destination, at around 15 lakh km from Earth.
- The telescope will orbit in an area of space known as a Lagrange point, where the gravitational pull from the Sun and Earth will be balanced by the centrifugal force of the rotating system.
- The points were first theorized by Italian French mathematician Joseph-Louis Lagrange. Webb will go around it in a halo at a distance similar to that between the Earth and Moon

Source: ForumIAS

Q.2) Which of the following country's Mars lander recently detected the largest quake that was observed on another planet?

- a) UAE
- b) USA
- c) China
- d) Israel

ANS: B

Explanation:

- NASA's InSight Mars lander detected the largest quake that was ever observed on another planet. The rover landed on Mars in November 2018 and has heard 1,313 quakes so far, of which the largest "Marsquake" was detected in August 2021.
- On Earth the quakes are caused by shifts in tectonic plates, but Mars does not have tectonic plates and its crust is a giant plate. As per the NASA, the 'marsquakes' are caused due to stresses that cause rock fracture in its crust.

Source: The Hindu

Q.3) Which is the largest recorded bacterium?

- a) Holophaga foetida
- b) Thiomargarita magnifica
- c) Bacillus thuringiensis
- d) Staphylococcus aureus

ANS: B

Explanation:

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- Scientists have discovered the world's largest recorded bacterium *Thiomargarita magnifica* in a Caribbean mangrove. It was measured to be more than a centimetre long.
- It can reach a maximum length of 2 cm.

Source: ForumIAS/The Hindu

Q.4) Which of the following country has developed 'CoVarScan' rapid test that can accurately detect all current variants of SARS-CoV-2?

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

ANS: B

Explanation:

- Scientists in the US have developed a rapid Covid-19 test that can accurately detect all current variants of SARS-CoV-2 within hours named CoVarScan.
- Scientists typically use whole genome sequencing, to determine which variant of Covid-19 a patient has been infected with and it is time-consuming and expensive

Source: The Hindu

Q.5) What is the full-form of 'SMRs', recently suggested by NITI Aayog member for meeting India's energy needs?

- a) Systemic modular reactors
- b) Simple modular reactors
- c) Small modular reactors
- d) Small mutual reactors

ANS: C

Explanation:

- NITI Aayog member and scientist V. K. Saraswat suggested that the government should focus on setting up small modular reactors.
- Small modular reactors (SMRs) are advanced nuclear reactors that have power capacity of up to 300 MW per unit. This would help meet India's energy needs and in replacing the aging thermal power plants.

Source: PIB

Q.6) The rocket named New Shepard, recently seen in news that is associated with which of the following space agency?

- a) ISRO
- b) NASA
- c) Blue Origin
- d) Virgin Atlantic

ANS: C

Explanation:

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- The rocket named New Shepard has been test launched recently by Blue Origin. It was an unscrewed test. The New Shepard launch vehicle consists of a reusable rocket and space capsule.
- During the test, both the capsule and the rocket boosters were brought down to earth successfully. Blue Origin is a private spaceflight company founded in 2000 by Amazon CEO Jeff Bezos.

Source: The Hindu

Q.7) In which State/UT, the world's second-largest refurbished state-of-the-art National Gene Bank is located?

- a) New Delhi
- b) Uttar Pradesh
- c) Gujarat
- d) Goa

ANS: A

Explanation:

- Union Minister for Agriculture and Farmers Welfare Narendra Singh Tomar has inaugurated the world's second-largest refurbished state-of-the-art National Gene Bank at the National Bureau of Plant Genetic Resources (NBPGR), Pusa in New Delhi.
- The need for bio fortified crop varieties is being felt, which the government is trying to overcome.
- The National Gene Bank established in the year 1996 to preserve the seeds of Plant Genetic Resources (PGR) for future generations, has the capacity to preserve about one million germplasm in the form of seeds.
- Presently it is protecting 4.52 lakh accessions, of which 2.7 lakh are Indian germplasm and the rest have been imported from other countries.

Source: The Hindu

Q.8) "The phenomenon when the sun, Earth and a full moon form a perfect line-up and the moon moves into the Earth's shadow" is called as?

- a) Solar Eclipse
- b) Lunar Eclipse
- c) Summer Solstice
- d) Winter Solstice

ANS: B

Explanation:

- The phenomenon when the sun, Earth and a full moon form a perfect line-up and the moon moves into the Earth's shadow is called the Lunar Eclipse.
- The United States of America would witness the longest partial lunar eclipse and the longest in 580 years on 17th November 2021, as per NASA. NASA has stated that the eclipse would last for three hours and 28 minutes.

Source: ForumIAS

Q.9) Indian Space Research Organisation (ISRO) has signed an MoU with which of the following smartphone maker, to strengthen NavIC messaging service?

- a) Xiaomi
- b) OPPO
- c) Huawei
- d) Samsung

ANS: B

Explanation:

- Indian Space Research Organisation (ISRO), Department of Space, and the government of India signed an MoU with smartphone maker OPPO to strengthen research and development of NavIC messaging service.
- NavIC messaging service is the domestic satellite navigation system of India. They will develop indigenous solutions by incorporating the NavIC short messaging feature in the smartphones released by OPPO.

Source: The Hindu

Q.10) Recently China has complained to the UN, about collision with some satellites. The satellites are launched by which of the following project?

- a) Starlink Internet Services project
- b) Psyche Mission
- c) Google Loon Project
- d) Oneweb Satellite Project

ANS: A

Explanation:

- China complained to the United Nations that its space station was forced to avoid collisions with satellites launched by his Starlink Internet Services project.
- As per China's claim to the Vienna-based United Nations Office for Outer Space Affairs, the country's space station had two close encounters with Starlink satellites this year.
- Starlink is a satellite internet network operated by Elon Musk's SpaceX.

Source: The Hindu

Economy

Q.1) Which of the following statement about factors affecting exchange rate system is not correct?

- a) RBI purchases dollars when Indian rupee depreciates.
- b) An increase in inflation rate can increase the demand for foreign currency.
- c) Higher interest rates can lead to the inflow of foreign currency.
- d) An increase in imports, depreciates domestic currency.

ANS: A

Explanation: Factors Affecting the Exchange Rate of India:

Intervention of The Reserve Bank of India: During high volatility in the exchange rate, RBI intervenes to prevent the exchange rate going out of control.

- For example, the RBI sells dollars when Indian rupee depreciates too much, while it purchases dollars when the Indian rupee appreciates beyond a certain level.

Inflation rate: The increase in inflation rate can increase the demand for foreign currency which can negatively impact the exchange rate of the national currency.

- For example, an increase in the inflation level of petroleum oil can increase the demand for foreign currency leading to the depreciation of Indian rupee.

Interest rate: Interest rates on government securities and bonds, corporate securities etc affect the outflow and inflow of foreign currency.

- If the interest rates on government bonds are higher compared to other country forex markets, it can increase the inflow of foreign currency, while lower interest rates can lead to the outflow of foreign currency. This affects the exchange rate of Indian rupee.

Exports and imports: Exports and imports affect exchange rate as exports earn of foreign currency while imports require payments in foreign currency.

- Thus, if the overall exports increases, the national currency appreciates, while an increase in imports leads to the depreciation of the national currency.
- Apart from above, the Indian foreign exchange market is also affected by factors such as the receipts in the accounts of exports in invisibles in the current account, inflow in the capital account such as FDI, external commercial borrowings, foreign institutional investments, NRI deposits, tourism activities etc.

Source: <https://blog.forumias.com/explained-making-sense-of-exchange-rate/>

Q.2) With reference to the Indian Renewable Energy Development Agency Limited (IREDA), which of the following statements is/are correct?

1. It is a Public Limited Government Company.
2. It is a Non-Banking Financial Company.

Select the correct answer using the code given below:

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

ANS: C

Explanation: Indian Renewable Energy Development Agency Limited (IREDA)

IREDA has been awarded “Mini Ratna” (Category -I) status in 2015 by Ministry of New and Renewable Energy (MNRE). IREDA is a Public Limited Government Company established as a NonBanking Financial Institution in 1987 under the administrative control of MNRE to promote, develop and extend financial assistance for renewable energy and energy efficiency /conservation projects with the motto: “ENERGY FOR EVER”.

Source: UPSC CSE 2015

Q.3) Consider the following statements:

1. Farm Sector Promotion Fund (FSPF) has been created in NABARD for supporting innovations in agriculture and allied sector.
2. Promotion of Climate Resilient Agriculture is one of the objectives of this scheme.

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: Farm Sector Promotion Fund

Farm Sector Promotion Fund (FSPF) has been created in NABARD for supporting innovations in agriculture and allied sector leading to enhancement of farm income and farm productivity, encompassing the following:

- Promotion of Innovations in Agriculture and Allied Sectors
- Enhancing Productivity of Agriculture and Allied sectors and creating market access
- Promotion of Climate Resilient Agriculture in vulnerable/ distressed districts
- Promotion of Agricultural Value Chains
- Promotion of Farmers’ Collectives including training and capacity building
- Supporting Expert Advisory Services, Policy advocacy including building up of human capital in rural areas
- The support under the Fund is in the form of grant, decided on the merits of each case/project. Loan assistance will be funded through the existing loan products of NABARD/subsidiaries of NABARD.

Source: <https://www.nabard.org/demo/auth/writereaddata/File/Farm%20Sector%20Promotion%20Fund%20Objectives.pdf>

Q.4) Consider the following statements about Indian patent regime:

1. The original Indian Patents Act did not grant patent protection to pharmaceutical products.
2. India is a member of Nice Agreement, concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks.

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: The Indian patent regime:

Right granted for an invention- A patent is an exclusive set of rights granted for an invention, which may be a product or process that provides a new way of doing something or offers a new technical solution to a problem. Indian patents are governed by the Indian Patent Act of 1970.

Patent protection of pharmaceuticals -The original Indian Patents Act did not grant patent protection to pharmaceutical products to ensure that medicines were available at a low price. Patent protection of pharmaceuticals were re-introduced after the 2005 amendment to comply with TRIPS

Recent situation- The USTR report highlighted a range of issues in domains ranging from copyright and piracy to trademark counterfeiting and trade secrets, saying that India “remained one of the world’s most challenging major economies with respect to protection and enforcement of IP.”

Nice Agreement- The Nice Agreement is an important administrative tool that establishes a classification of goods and services for registering trademarks and service marks (the Nice Classification).

The trademark offices of member states must indicate, in official documents and publications in connection with each registration, the numbers of the classes of the Classification to which the goods or services for which the mark is registered belong.

India becomes the 88th member of the Nice Agreement.

Source: WIPO

Q.5) Which of the following combination of treaties/agreements is known as Internet treaty?

1. WIPO Copyright Treaty
2. Nice Agreement
3. WIPO Performances and Phonograms Treaty

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: Internet Treaties:

Created with love ❤ by ForumIAS- the knowledge network for civil services.
Visit academy.forumias.com for our mentor based courses.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- India joined the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty - known together as the "Internet Treaties". India's accession brings the total number of contracting parties to the "Internet Treaties" to 97 each.
- The WIPO Internet Treaties update the multilateral copyright system set forth in older treaties such as the Berne Convention from 1886 and the Rome Convention from 1961 for the digital era. By joining these treaties, India is taking an important step to support the development of its renowned creative industries and to allow them to distribute their creative outputs worldwide within the copyright framework.

Source: WIPO

Q.6) With respect to Balance of Trade, which of the following statement is/are not correct?

1. Balance of trade is the difference between the value of a country's imports and exports for a given period.
2. The Balance of Payment (BOP) combines only public investments to find out the money inflow and outflow in an economy over a specific period.
3. Positive Balance of Payment (BOP) indicates deficit.

Select the correct answer using the code given below:

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

ANS: D

Explanation: Balance of Trade

The term 'trade' refers to buying and selling of goods. However, when it is performed on an international scale, it is called imports and exports. Balance of Trade (BOT) mentions the import and exports made by a nation's economy within a specific year. BOT only records tangible items.

Balance of trade (BOT) is the difference between the value of a country's imports and exports for a given period and is the largest component of a country's balance of payments (BOP).

Balance of Payment is a combination of accounts that shows the commercial transactions concluded by a country within a specific period with other countries. These accounts reflect every monetary transaction, i.e. commodities, services, and incomes during that period.

The Balance of Payment (BOP) combines every private and public investment to find out the money inflow and outflow in an economy over a specific period.

The ideal status of BOP should be zero, which indicates that the money coming into the country is equal to the money going out of the country. However, this situation is highly unlikely. Therefore, if it is negative, then it indicates deficit, and if positive, it means a surplus.

Source: ForumIAS

Q.7) With reference to Modified Industrial Infrastructure Upgradation Scheme, consider the following statements:

1. The scheme is implemented by the Department for Promotion of Industry and Internal Trade.
2. The objective of the scheme is to improve the competitiveness of domestic industry by providing quality infrastructure by 100% Central Government investment.

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: Modified Industrial Infrastructure Upgradation Scheme

It is implemented by the Department for Promotion of Industry and Internal Trade, under the Ministry of Commerce and Industry.

The objective of the scheme is to improve the competitiveness of domestic industry by providing quality infrastructure by public-private partnership.

- MIIUS - Modified Industrial Infrastructure Upgradation Scheme
- Industrial Infrastructure Upgradation Scheme (IIUS) was launched in 2003 with the objective of enhancing industrial competitiveness of domestic industry by providing quality infrastructure through public private partnership
- A modified version of IIUS viz. 'Modified Industrial Infrastructure Upgradation Scheme (MIIUS)' was notified in July 2013.
- Under MIIUS, projects have been undertaken to upgrade infrastructure in existing Industrial Parks/ Estates/ Areas.
- Greenfield Projects have also been undertaken in backward areas and North Eastern Region (NER).
- It is implemented by the Department for Promotion of Industry and Internal Trade, under the Ministry of Commerce and Industry.

Source: <https://dpiit.gov.in/programmes-and-schemes/infrastructure/industrial-infrastructure-upgradation-scheme-iius>

Q.8) The term like 'Unicorn', often seen in news, implies which of the following?

- a) A startup that reaches the valuation of \$1 billion.
- b) Any startup that reaches the funding of \$1 billion.
- c) A government aided startup.
- d) A startup which has monopoly in e-commerce.

ANS: A

Explanation: Unicorn:

- In the venture capital industry, the term unicorn refers to any startup that reaches the valuation of \$1 billion.
- Only a privately held startup can be a unicorn.
- The term initially was used to lay emphasis on the rarity of such startups.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- Disruptive Innovation, high on technology, new ideas, consumer focus are some of the common features of unicorns.
- As of 27th January 2022, India is home to 84 unicorns with a total valuation of \$ 286.27 Bn. Sequoia has been the most active investor in Indian Unicorns, followed by Tiger Global Management, Accel, and Softbank.
- A decacorn is company that has attained a valuation of more than \$ 10 Bn. As of January 2022, 46 companies world over have achieved the decacorn status. India has four startups namely, Flipkart, BYJU's, Paytm and Swiggy, added in decacorn cohort.
- Recently, an Indian startup founder quipped on Twitter that the definition of a 'Unicorn' as used in the venture capital industry should now change to \$1 billion of funding raised. The term currently refers to a startup that reaches a valuation of \$1 billion.
- He was commenting on the flurry of unicorns that have been created globally. The term was originally coined by US venture capitalist Aileen Lee in 2013 when there were just 39 startups globally that fit the definition, which has not changed since then.

Source: <https://blog.forumias.com/explained-what-is-a-unicorn-and-what-does-it-take-to-become-one/>

Q.9) Who among the following can join the National Pension System (NPS)?

- a) Resident Indian citizens only
- b) Persons of age from 21 to 55 only
- c) All State Government employees joining the services after the date of notification by the respective State Governments
- d) All Central Governments Employees including those of Armed Forces joining the services on or after 1st April, 2004

ANS: C

Explanation: The Central Government had introduced the National Pension System (NPS) with effect from January 1, 2004 (except for armed forces).

- Subsequently, various State Governments adopted this architecture and implemented NPS with effect from different dates.
- Eligibility – Any citizen of India, whether resident or non-resident, subject to the following conditions.
 - Individuals who are aged between 18 – 60 years, including NRIs .
 - After attaining 60 years of age, you will not be permitted to make further contributions to the NPS accounts

Source: UPSC CSE 2017.

Q.10) Nivesh Bandhu Portal, setup by Indian government for attracting investment in India is associated with which of the following sectors?

- a) Food processing
- b) e-Vehicle
- c) Communication and IT
- d) Electronics and Equipment

ANS: A

Explanation: Nivesh Bandhu Portal:

- It is the investment portal under the Ministry of Food Processing Industries, India.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK). 2022

- The portal provides a platform to all the investors who are looking to invest in India in the food processing sector.
- The portal highlights the steps on doing business in India, policies and facilities provided by the government and the regulatory frameworks that are involved in setting up the operations in India.

The aim of the NiveshBandhu Portal is:

- Boost investments in the food processing sector of India
- To ease the handholding process for the investors
- Tap the potential of all the sub sectors in Food Processing
- To guide and assist the investors with the major infrastructure available in India (Mega Food Parks, Cold Chains and Agro Processing Clusters)
- Support investors and companies with the schemes, policies and incentives given by the State and the Central Government

Source: <https://foodprocessingindia.gov.in/information/details/about-nivesh-bandhu>

Polity

Q.1) In India recognition to political parties is accorded by whom among the following?

- a) President
- b) Speaker of Lok Sabha
- c) Election Commission
- d) Ministry of Parliamentary Affairs

ANS: C

Explanation: Recognition of National and State Parties:

- The Election Commission registers political parties for the purpose of elections and grants them recognition as national or state parties on the basis of their poll performance.
- The other parties are simply declared as registered-unrecognised parties.
- The recognition granted by the Commission to the parties determines their right to certain privileges like allocation of the party symbols, provision of time for political broadcasts on the state-owned television and radio stations and access to electoral rolls.

Source: Laxmikanth

Q.2) Which one of the following ideologies has class-struggle as a part of its doctrine?

- a) Communism
- b) Capitalism
- c) Fascism
- d) Socialism

ANS: B

Explanation: Doctrine of Class Struggle

- Marx, one of the principle architects of modern social science, believed that history was made of up stages driven by class conflict. Famously, Marx wrote in The Communist Manifesto, “The history of all hitherto existing society is the history of class struggles”.
- Class struggle pushed society from one stage to the next, in a dialectical process. In each stage, an ownership class controls the means of production while a lower class provides labor for production.
- The two classes come into conflict and that conflict leads to social change. For example, in the feudal stage, feudal lords owned the land used to produce agricultural goods, while serfs provided the labor to plant, raise, and harvest crops. When the serfs rose up and overthrew the feudal lords, the feudal stage ended and ushered in a new stage: capitalism.

Instabilities in Capitalism

- Marx’s work focused largely on explaining the inherent instabilities present in capitalism and predicting its eventual fall and transition to socialism. Marx argued that capitalism was unstable and prone to periodic crises.
- Marx believed that economic growth would be punctuated by increasingly severe crises as capitalism went through cycles of growth, collapse, and more growth. Moreover, he

believed that in the long-term this process would necessarily enrich and empower the capitalist class, while at the same time it would impoverish the poorer laboring class, which he referred to as the proletariat.

- Eventually, the proletariat would become class conscious—aware that their seemingly individual problems were created by an economic system that disadvantaged all those who did not own the means of production. Once the proletariat developed a class consciousness, Marx believed they would rise up and seize the means of production, overthrowing the capitalist mode of production, and bringing about a socialist society.
- Marx believed that the socialist system established after the proletariat revolution would encourage social relations that would benefit everyone equally, abolish the exploitative capitalist, ending their exclusive ownership of the means of production, and introduce a system of production less vulnerable to cyclical crises. For Marx, this eventual uprising was inevitable, given the inherent structural contradictions in capitalism and the inevitability of class conflict.

Source: NCERT-Political Theory

Q.3) Which one of the following is the fundamental characteristic of the ultimate stage of communism?

- Cultural Revolution
- Dictatorship of proletariat
- Formation of a World state
- Withering away of the state

ANS: D

Explanation: According to Marx's theory of historical materialism, societies pass through six stages:

- primitive communism,
- slave society,
- feudalism,
- capitalism,
- socialism
- global, stateless communism.

Source: <https://www.thehindu.com/news/international/karl-marx-in-five-core-ideas/article23774957.ece>

Q.4) A dispute arising out of the election of the President of India is referred to the:

- Election Commission
- Supreme Court of India
- Lok Sabha
- Law Commission

ANS: B

Explanation: Election of President

- All doubts and disputes in connection with election of the President are inquired into and decided by the Supreme Court whose decision is final.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- The election of a person as President cannot be challenged on the ground that the Electoral College was incomplete (ie, existence of any vacancy among the members of Electoral College).
- If the election of a person as President is declared void by the Supreme Court, acts done by him before the date of such declaration of the Supreme Court are not invalidated and continue to remain in force.

Source: Laxmikanth

Q.5) Which of the following committee submitted reports on Electoral reforms?

1. Dinesh Goswami Committee
2. Tarkunde Committee
3. Indrajit Gupta Committee
4. Balwant Rai Mehta Committee

Select the correct answer using the codes given below:

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

ANS: C

Explanation: Committees Related to Electoral Reforms:

The various committees and commissions which have examined our electoral system, election machinery as well as election process and suggested reforms are mentioned here.

- Joint Parliamentary Committee on Amendments to Election Laws (1971-72).
- Tarkunde Committee was appointed in 1974 by Jaya Prakash Narayan (JP) during his “Total Revolution” movement. This unofficial committee submitted its report in 1975.
- Dinesh Goswami Committee on Electoral Reforms (1990)
- Vohra Committee on the Nexus between Crime and Politics (1993)
- Election Commission of India Recommendations on Electoral Reforms (1998).
- Indrajit Gupta Committee on State Funding of Elections (1998)
- Law Commission of India 170th Report on Reform of the Electoral Laws (1999)
- National Commission to Review the Working of the Constitution (2000- 2002). It was headed by M.N. Venkatachaliah.
- Election Commission of India Report on Proposed Electoral Reforms (2004).
- Second Administrative Reforms Commission of India Report on Ethics in Governance (2007). It was headed by Veerappa Moily.
- Tankha Committee (Core Committee) was appointed in 2010 to look into the whole gamut of the election laws and electoral reforms.
- J.S. Verma Committee Report on Amendments to Criminal Law (2013).
- Law Commission of India 244th Report on Electoral Disqualifications (2014).
- Law Commission of India 255th Report on Electoral Reforms (2015).

Source: Laxmikanth

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

Q.6) The 2nd Administrative Reform Commission has not produced a report on which of the following?

- a) Ethics in Governance
- b) Local Governance
- c) Combating Terrorism
- d) Eradication of Corruption

ANS: D

Explanation: 2nd Administrative Reform Commission:

- The Administrative Reforms Commission's reports are known as ARC Reports.
- The 2nd ARC (2005) drew up a thorough design for reforming the government's administrative system.
- It presented the government with 15 reports listed below:

Report	Title
1st Report	Right to Information: Master Key to Good Governance
2nd Report	Unlocking Human Capital: Entitlements and Governance
3rd Report	Crisis Management
4th Report	Ethics in Governance
5th Report	Public Order
6th Report	Local Governance
7th Report	Capacity Building for Conflict Resolution
8th Report	Combating Terrorism - Protecting by Righteousness
9th Report	Social Capital-A shared Destiny
10th Report	Refurbishing of Personnel Administration & Scaling New Heights
11th Report	Promoting eGovernance : The Smart Way Forward
12th Report	Citizen Centric Administration
13th Report	Organisational structure of Govt of India
14th Report	Strengthening Financial Management Systems
15th Report	State and District Administration

Source: <https://darpg.gov.in/en/arc-reports>

Q.7) Which among the following trade union was established earliest?

- a) Hind Mazdoor Sabha
- b) Indian National Trade Union Congress
- c) All India Trade Union Congress
- d) Centre of Indian Trade Union

ANS: C

Explanation: Trade Union:

The trade unions voice the demands of the industrial workers. They are also known as labour groups. A peculiar feature of trade unions in India is that they are associated either directly or indirectly with different political parties. They include:

- All-India Trade Union Congress (AITUC)–affiliated to CPI
- Indian National Trade Union Congress (INTUC)–affiliated to the Congress (1947)
- Hind Mazdoor Sabha (HMS)–affiliated to the Socialists (1948)
- Centre of Indian Trade Unions (CITU)– affiliated to the CPM (1970)
- Bharatiya Mazdoor Sangh (BMS)– affiliated to the BJP (1955)

Created with love ❤ by ForumIAS- the knowledge network for civil services.
Visit academy.forumias.com for our mentor based courses.

First Trade Union in India: All India Trade Union Congress (AITUC) was founded in 1920 with LalaLajpatRai as its first president. Upto 1945, Congressmen, Socialists and Communists worked in the AITUC which was the central trade union organisation of workers of India. Subsequently, the trade union movement got split on political lines.

Source: Laxmikanth

Q.8) Which of the following statement about National Foundation for Communal Harmony is not correct?

- a) It was set up in 1992.
- b) It is an autonomous body under the administrative control of the PMO.
- c) It promotes communal harmony, fraternity and national integration.
- d) Both (a) and (b)

ANS: B

Explanation: National Foundation for Communal Harmony:

- The National Foundation for Communal Harmony (NFCH) was set up in 1992. It is an autonomous body under the administrative control of the Union Home Ministry.
- It promotes communal harmony, fraternity and national integration. The vision and mission of the NFCH are as follows: Vision: India free from communal and all other forms of violence where all citizens especially children and youth live together in peace and harmony.
- Mission: Promoting communal harmony, strengthening national integration and fostering unity in diversity through collaborative social action, awareness programs, reaching out to the victims of violence especially children, encouraging interfaith dialogue for India's shared security, peace and prosperity.

Source: Laxmikanth

Q.9) "It is a technique used by Pressure Groups in which they try to influence public opinion and thereby gain an indirect influence over government, since the government in a democracy is substantially affected by public opinion."

Which of the following technique is described in the above statement?

- a) Propagandizing
- b) Lobbying
- c) Electioneering
- d) None

ANS: A

Explanation: Pressure Group:

- According to Odegard, pressure groups resort to three different techniques in securing their purposes. First, they can try to place in public office persons who are favourably disposed towards the interests they seek to promote.
- This technique may be labelled electioneering. Second, they can try to persuade public officers, whether they are initially favourably disposed toward them or not, to adopt and enforce the policies that they think will prove most beneficial to their interests.
- This technique may be labelled lobbying. Third, they can try to influence public opinion and thereby gain an indirect influence over government, since the government in a

democracy is substantially affected by public opinion. This technique may be labelled propagandizing.

Source: Laxmikanth

Q.10) In which of the following state/UT, EVMs were used for the first time in the general elections (entire state) to the Assembly?

- a) Delhi
- b) Sikkim
- c) Goa
- d) Tripura

ANS: C

Explanation: Electronic Voting Machines:

- In 1989, a provision was made to facilitate the use of Electronic Voting Machines (EVMs) in elections. The EVMs were used for the first time in 1998 on experimental basis in selected constituencies in the elections to the Assemblies of Rajasthan, Madhya Pradesh and Delhi.
- The EVMs were used for the first time in the general elections (entire state) to the Assembly of Goa in 1999.

Source: Laxmikanth

Geography

Q.1) Consider the following statements about interior of earth:

1. A large part of the information about interior of earth is obtained through direct sources.
2. Volcanic eruption forms an important source of obtaining indirect information.

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: Sources of information about the interior:

- The earth's radius is 6,370 km. No one can reach the centre of the earth and make observations or collect samples of the material.
- Under such conditions, you may wonder how scientists tell us about the earth's interior and the type of materials that exist at such depths.
- Most of our knowledge about the interior of the earth is largely based on estimates and inferences. Yet, a part of the information is obtained through direct observations and analysis of materials.

Direct Sources

- The most easily available solid earth material is surface rock or the rocks we get from mining areas. Gold mines in South Africa are as deep as 3 - 4 km.
- Going beyond this depth is not possible as it is very hot at this depth. Besides mining, scientists have taken up a number of projects to penetrate deeper depths to explore the conditions in the crustal portions.
- Scientists world over are working on two major projects such as "Deep Ocean Drilling Project" and "Integrated Ocean Drilling Project". The deepest drill at Kola, in Arctic Ocean, has so far reached a depth of 12 km. This and many deep drilling projects have provided large volume of information through the analysis of materials collected at different depths.
- Volcanic eruption forms another source of obtaining direct information. As and when the molten material (magma) is thrown onto the surface of the earth, during volcanic eruption it becomes available for laboratory analysis.

However, it is difficult to ascertain the depth of the source of such magma.

Source: NCERT Class 11

Q.2) Consider the following sources of information about interior of earth:

1. Magnetic Field
2. Gravitational Force
3. Gold Mines

Which of the above mentioned sources is/are indirect sources?

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

ANS: A

Explanation: Indirect Sources

- Analysis of properties of matter indirectly provides information about the interior. We know through the mining activity that temperature and pressure increase with the increasing distance from the surface towards the interior in deeper depths.
- Moreover, it is also known that the density of the material also increases with depth. It is possible to find the rate of change of these characteristics. Knowing the total thickness of the earth, scientists have estimated the values of temperature, pressure and the density of materials at different depths.
- The details of these characteristics with reference to each layer of the interior are discussed later in this chapter.
- Another source of information are the meteors that at times reach the earth. However, it may be noted that the material that becomes available for analysis from meteors, is not from the interior of the earth.
- The material and the structure observed in the meteors are similar to that of the earth. They are solid bodies developed out of materials same as, or similar to, our planet. Hence, this becomes yet another source of information about the interior of the earth.
- The other indirect sources include gravitation, magnetic field, and seismic activity.
- The gravitation force (g) is not the same at different latitudes on the surface. It is greater near the poles and less at the equator. This is because of the distance from the centre at the equator being greater than that at the poles.
- The gravity values also differ according to the mass of material. The uneven distribution of mass of material within the earth influences this value. The reading of the gravity at different places is influenced by many other factors.
- These readings differ from the expected values.
- Such a difference is called gravity anomaly.
- Gravity anomalies give us information about the distribution of mass of the material in the crust of the earth. Magnetic surveys also provide information about the distribution of magnetic materials in the crustal portion, and thus, provide information about the distribution of materials in this part.
- Seismic activity is one of the most important sources of information about the interior of the earth.

Source: NCERT Class 11

Q.3) With respect to earthquake, which of the following given statement is/are correct?

1. The point where the energy is released is called the hypocenter.
2. The point on the surface, nearest to the focus, is called epicenter

Select the correct answer using the codes given below:

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

ANS: C

Explanation: Why does the earth shake?

- The release of energy occurs along a fault. A fault is a sharp break in the crustal rocks.
- Rocks along a fault tend to move in opposite directions.
- As the overlying rock strata press them, the friction locks them together. However, their tendency to move apart at some point of time overcomes the friction.
- As a result, the blocks get deformed and eventually, they slide past one another abruptly. This causes a release of energy, and the energy waves travel in all directions.
- The point where the energy is released is called the focus of an earthquake, alternatively, it is called the hypocentre. The energy waves travelling in different directions reach the surface.
- The point on the surface, nearest to the focus, is called epicentre. It is the first one to experience the waves. It is a point directly above the focus.

Source: NCERT Class 11

Q.4.) With respect to earthquake waves, which of the following statement is/are correct?

1. The Surface waves move along the surface and the velocity of these waves do not changes with change in the density of material they are travelling.
2. Body waves are generated due to the release of energy at the focus and move in all directions.

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: Earthquake Waves:

- All natural earthquakes take place in the lithosphere. You will learn about different layers of the earth later in this chapter. It is sufficient to note here that the lithosphere refers to the portion of depth up to 200 km from the surface of the earth.
- An instrument called 'seismograph' records the waves reaching the surface. A curve of earthquake waves recorded on the seismograph is given in Figure 3.1. Note that the curve shows three distinct sections each representing different types of wave patterns.
- Earthquake waves are basically of two types — body waves and surface waves. Body waves are generated due to the release of energy at the focus and move in all directions travelling through the body of the earth.

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- Hence, the name body waves. The body waves interact with the surface rocks and generate new set of waves called surface waves. These waves move along the surface. The velocity of waves changes as they travel through materials with different densities.
- The denser the material, the higher is the velocity. Their direction also changes as they reflect or refract when coming across materials with different densities.

Source: NCERT Class 11

Q.5) Which of the following statement about Body waves is/are correct?

1. S-Wave travel through gaseous, liquid and solid materials.
2. Seismograph helps in inferring the variations in the direction of waves.
3. Body waves are less destructive than the surface waves.

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: B

Explanation: Body waves:

- There are two types of body waves. They are called P and S-waves. P-waves move faster and are the first to arrive at the surface. These are also called 'primary waves'. The P-waves are similar to sound waves. They travel through gaseous, liquid and solid materials.
- S-waves arrive at the surface with some time lag. These are called secondary waves. An important fact about S-waves is that they can travel only through solid materials. This characteristic of the S-waves is quite important.
- It has helped scientists to understand the structure of the interior of the earth. Reflection causes waves to rebound whereas refraction makes waves move in different directions. The variations in the direction of waves are inferred with the help of their record on seismograph. The surface waves are the last to report on seismograph.
- These waves are more destructive. They cause displacement of rocks, and hence, the collapse of structures occurs.

Source: NCERT Class 11

Q.6) Consider the following pairs:

Type of Earthquake	Related to
1. Collapse Earthquake	Large Reservoirs
2. Explosion Earthquake	Nuclear Device
3. Tectonic Earthquake	Fault Line
4. Volcanic Earthquake	Active Volcanoes

How many of the pairs given above is/are correctly matched?

- a) One pair only
- b) Two pairs only
- c) Three pairs only
- d) All four pairs

ANS: C

Explanation: Types of Earthquakes:

- The most common ones are the tectonic earthquakes. These are generated due to sliding of rocks along a fault plane.
- A special class of tectonic earthquake is sometimes recognised as volcanic earthquake. However, these are confined to areas of active volcanoes.
- In the areas of intense mining activity, sometimes the roofs of underground mines collapse causing minor tremors. These are called collapse earthquakes.
- Ground shaking may also occur due to the explosion of chemical or nuclear devices. Such tremors are called explosion earthquakes.
- The earthquakes that occur in the areas of large reservoirs are referred to as reservoir induced earthquakes.

Source: NCERT Class 11

Q.7) Which of the following scale measures the intensity of an earthquake?

- a) Richter Scale
- b) Mercalli Scale
- c) Pycnometer
- d) None

ANS: B

Explanation: Measuring Earthquakes:

- The earthquake events are scaled either according to the magnitude or intensity of the shock.
- The magnitude scale is known as the Richter scale. The magnitude relates to the energy released during the quake. The magnitude is expressed in numbers, 0-10.
- The intensity scale is named after Mercalli, an Italian seismologist. (The Mercalli Scale is based on observable earthquake damage. From a scientific standpoint, the magnitude scale is based on seismic records while the Mercalli is based on observable data which can be subjective).
- The intensity scale takes into account the visible damage caused by the event. The range of intensity scale is from 1-12.
- NOTE: A pycnometer allows measuring the volume and the density of solid objects in a non-destructive manner.

Source: NCERT Class 11

Q.8) Consider the following immediate hazardous effects of earthquake:

1. Tsunami
2. Mudslide
3. Soil Liquefaction
4. Avalanche
5. Levee Failure

Which of the above mentioned have some bearings upon landforms?

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

ANS: B

Explanation: Effects of Earthquake:

Earthquake is a natural hazard. The following are the immediate hazardous effects of earthquake:

- Ground Shaking
- Differential ground settlement
- Land and mud slides
- Soil liquefaction
- Ground lurching
- Avalanches
- Ground displacement
- Floods from dam and levee failures
- Fires
- Structural collapse
- Falling objects
- Tsunami

The first six listed above have some bearings upon landforms, while others may be considered the effects causing immediate concern to the life and properties of people in the region.

The effect of tsunami would occur only if the epicentre of the tremor is below oceanic waters and the magnitude is sufficiently high. Tsunamis are waves generated by the tremors and not an earthquake in itself. Though the actual quake activity lasts for a few seconds, its effects are devastating provided the magnitude of the quake is more than 5 on the Richter scale.

Source: NCERT Class 11

Q.9) With respect to structure of the earth, consider the following statements:

1. The mean thickness of oceanic crust is more than the continental crust.
2. The stronger region of mantle is called as asthenosphere.

Which of the above mentioned statement is/are correct?

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

ANS: D

Explanation: STRUCTURE OF THE EARTH:

PRELIMS MARATHON COMPILATION FOR THE MONTH OF AUGUST (FIFTH WEEK), 2022

- The Crust It is the outermost solid part of the earth. It is brittle in nature. The thickness of the crust varies under the oceanic and continental areas.
- Oceanic crust is thinner as compared to the continental crust. The mean thickness of oceanic crust is 5 km whereas that of the continental is around 30 km. The continental crust is thicker in the areas of major mountain systems. It is as much as 70 km thick in the Himalayan region.
- The Mantle The portion of the interior beyond the crust is called the mantle. The mantle extends from Moho's discontinuity to a depth of 2,900 km.
- The upper portion of the mantle is called asthenosphere. The word astheno means weak. It is considered to be extending upto 400 km.
- The Core As indicated earlier, the earthquake wave velocities helped in understanding the existence of the core of the earth. The core-mantle boundary is located at the depth of 2,900 km.
- The outer core is in liquid state while the inner core is in solid state. The density of material at the mantle core boundary is around 5 g/cm³ and at the centre of the earth at 6,300 km, the density value is around 13g/cm³. The core is made up of very heavy material mostly constituted by nickel and iron. It is sometimes referred to as the nife layer.

Source: NCERT Class 11

Q.10) "These are the most explosive of the earth's volcanoes. They are usually so explosive that when they erupt they tend to collapse on themselves rather than building any tall structure."

Which of the following is described in the above given statement?

- a) Composite Volcano
- b) Flood Basalt Provinces
- c) Caldera
- d) Mid-Ocean Ridge Volcanoes

ANS: C

Explanation: Caldera:

- These are the most explosive of the earth's volcanoes. They are usually so explosive that when they erupt they tend to collapse on themselves rather than building any tall structure.
- The collapsed depressions are called calderas. Their explosiveness indicates that the magma chamber supplying the lava is not only huge but is also in close vicinity.

Source: NCERT Class 11