

ForumIAS

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Prelims Marathon

20th to 26th June, 2022

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

Schemes/ Programmes/ Institutions

Q.1) Consider the following statements about Utsav Portal:

1. It has been launched by the Ministry of Culture.
2. It is a digital initiative that aims to showcase all the events, festivals and live darshans across India.

Which of the statements given above is/are correct?

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

ANS: B

Explanation: Utsav Portal

- It has been launched by the Ministry of Tourism.
- It is a digital initiative that aims to showcase all the events, festivals and live darshans across India.
- It will help promote different regions of the country as popular tourist destinations worldwide.

Source: EPIC April 2022

Q.2) Consider the following statements about Seema Darshan Project:

1. It is a joint initiative of the Tourism Department of the Gujarat government and Ministry of Defence.
2. Under the project, access will be provided to citizens to view the fenced Indo-Pakistan border.

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: Seema Darshan Project

- It is a joint initiative of the Tourism Department of the Gujarat government and the BSF Gujarat Frontier.
- Its aim is to develop border tourism in the Nadabet region (Banaskantha District) of Gujarat, which has a sparse population and vegetation.
- Under the project, access will be provided to citizens to view the fenced Indo-Pakistan border.
- The project will boost tourism and restrict migration from the villages.

Source: EPIC April 2022

Q.3) “e-DAR Portal”, recently seen in news, is related to which of the following?

- a) Education
- b) Differently Abled Persons
- c) Road Accidents
- d) Covid-19 Vaccination

ANS: C

Explanation: e-DAR Portal (Detailed Accident Report)

- The Ministry of Road Transport and Highways has developed a portal named ‘e-DAR’ (e-Detailed Accident Report) in consultation with the insurance companies.
- Its aim is to provide instant information on road accidents to help accelerate accident compensation claims.
- It will also check fake claims.
- The portal will be linked to the Integrated Road Accident Database (iRAD).

Source: EPIC April 2022

Q.4) Which of the city has become the first Indian city to become a member of the Global Silk City Network?

- a) Kolkata
- b) Guwahati
- c) Mysore
- d) Bengaluru

ANS: D

Explanation: Global Silk City Network

- Bengaluru has become the first Indian city to become a member of the Global Silk City Network.
- Global Silk City Network helps artisans and craftsmen to exchange knowledge, build trade relations and understand various craftsmanship techniques.
- At present, 13 best silk-producing cities and nine countries are members of this network. West Bengal’s Murshidabad district — known to produce fine silk over the past 300 years — may join the Global Silk City Network in future.

Source: EPIC April 2022

Q.5) Consider the following statements about Mission Vatsalya:

1. The mission is focused on Child Protection Services and Welfare services.
2. It aims to assist States/UTs in delivering the mandate of the Juvenile Justice Act 2015.

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: Mission Vatsalya

- The Ministry of Women and Child Development has formulated draft guidelines for Mission Vatsalya Scheme.
- The mission is focused on Child Protection Services and Welfare services.

- It is essentially a renamed version of the pre-existing scheme Child Protection Services.
- The objectives of the Mission include
 - Secure a healthy and happy childhood for every child in India;
 - Foster a sensitive, supportive and synchronized ecosystem for the development of children;
 - Assist States/UTs in delivering the mandate of the Juvenile Justice Act 2015;
 - Achieve the SDG goals.

Source: EPIC April 2022

Q.6) Consider the following statements about Mission Integrated Biorefineries:

1. It has been launched under Mission Innovation of the EU.
2. It will be co-led by India and Britain.
3. It has a target of replacing 50% of fossil-based fuels, chemicals and materials with bio-based alternatives by 2030.

Which of the statements given above is/are correct?

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

ANS: B

Explanation: Mission Integrated Biorefineries

- It has been launched under Mission Innovation of the EU.
- It will be co-led by India and Netherlands.
- Its aim is to develop and demonstrate innovative solutions to accelerate the commercialization of integrated biorefineries.
- It has a target of replacing 10% of fossil-based fuels, chemicals and materials with bio-based alternatives by 2030.
- The mission is a PPP (Public Private Participation) mode initiative that unites countries, international organizations, the corporate sector, academic institutions and civil society to accelerate innovation for renewable fuels for a low-carbon future.
- Brazil and Canada are core members and the European Commission and the United Kingdom are supporting members.
- Mission Innovation (MI) is a global initiative of 24 countries and the European Commission (on behalf of the European Union).
- In India, the mission is being coordinated by Department of Biotechnology.

Source: EPIC April 2022

Q.7) Consider the following statements about PM VIKAS:

1. The scheme shall focus on socio-economic empowerment of minorities with emphasis on women only.
2. At least 33% of the total targets in the scheme are reserved for women.

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: PM Virasat Ka Samvardhan (PM VIKAS)

- The Union Cabinet has approved the integrated scheme 'Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS)'.
- The scheme shall focus on socio-economic empowerment of minorities with special emphasis on artisan communities, women, and youth.
- At least 33% of the total targets in the scheme are reserved for women.
- One of components of the scheme aims to provide entrepreneurship and leadership support exclusively to women.

Source: EPIC April 2022

Q.8) Consider the following statements about TEJAS Skilling Project:

1. It is a Skill India International Project to train overseas Indians.
2. The project is aimed at skill enhancement, certification and overseas employment of Indians.

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: TEJAS Skilling Project

- TEJAS stands for Training for Emirates Jobs and Skills.
- It is a Skill India International Project to train overseas Indians.
- The project is aimed at skill enhancement, certification and overseas employment of Indians.
- The project has a target of creating a 10,000 strong Indian workforce in the UAE during the initial phase.

Source: EPIC April 2022

Q.9) Which of the following states have signed Combined Reciprocal Common Transport Agreement (CRCTA)?

1. Delhi
2. Bihar
3. Punjab
4. Haryana
5. Uttar Pradesh
6. Rajasthan

Select the correct answer using the codes given below:

- a) 1, 2, 3 and 4 only
- b) 1, 3, 4 and 5 only
- c) 1, 4, 5 and 6 only
- d) 3, 4, 5 and 6 only

ANS: C

Explanation: Combined Reciprocal Common Transport Agreement (CRCTA)

- Governments of Delhi, Haryana, Rajasthan and Uttar Pradesh have signed a Combined Reciprocal Common Transport Agreement (CRCTA) covering both Contract Carriage & Stage Carriage.
- It aims to facilitate seamless movement of passenger vehicles in the National Capital Region (NCR).
- It will cover all Motor cabs/Taxis/Auto Rickshaws, vehicles belonging to Educational Institutions and All Stage Carriage Buses of State Transport Undertakings.

Source: EPIC April 2022

Q.10) Project UNNATI is an initiative of which of the following ministry?

- a) Ministry of Rural Development
- b) Ministry of Urban development
- c) Ministry of Agriculture & Farmers Welfare
- d) Ministry of Road Transport & Highways

ANS: A

Explanation: Project UNNATI

- It is an initiative of the Ministry of Rural Development.
- It is a skilling project to upgrade the skill base of the MGNREGA beneficiaries.
- It will help in improving their livelihoods so that they can move to fulltime employment and hence reduce their dependence on MGNREGA.
- Expenditure towards stipend and wage loss compensation are entirely borne by the Central Government.

Source: EPIC April 2022

General Science

Q.1) Which of the following is/are correctly matched?

Vision Defect	Correction Lens
1. Myopia	Bifocal lens
2. Hypermetropia	Convex lens
3. Presbyopia	Concave lens

Select the correct answer using the codes given below:

- a) Only 1 pair
- b) Only 2 pair
- c) Only 3 pair
- d) None of the above pair

ANS: A

Explanation: Vision Defects

Myopia: A person with Myopia can see nearby objects clearly. A person with myopia cannot see faraway objects clearly. The far point for the myopic eye is nearer than infinity occurs due to excessive curvature of the eye lens and elongation of the eyeball. The image of a distant object is formed in front of the retina and not on the retina.

Defected is corrected by using Concave lenses such that the lens will bring the image back on to the retina.

Hypermetropia: A person with Hypermetropia can see far away objects clearly. A person with Hypermetropia cannot see nearby objects clearly. The near point of the eye is more than 25cm. This arises mostly during latter stages in life, as a result of the weakening of the ciliary muscles and/or the decreased flexibility of the lens. The image of a distant object is formed behind the retina and not on the retina.

Defected is corrected by using Convex lenses such that the lens will bring the image back on to the retina.

Presbyopia: The power of accommodation of the eye usually decreases with aging. The ciliary muscles weaken and thereby the flexibility of the eye lens reduces. The near point moves away. Spectacles with bifocal lenses are recommended.

Source: NCERT

Q.2) Which of the following is the real-world application of the Doppler Effect?

- a) Medical Diagnosis
- b) Artificial Intelligence
- c) Speed Gun
- d) Both (a) and (b)

ANS: D

Explanation: Doppler Effect and its applications

- Doppler's effect can be defined as an observed change in frequency of a wave (for eg., Sound wave) when an observer and source have relative motion between them.
- The Doppler Effect has several real-world applications. Some of them are given below.
 - Police radar "gun" to check the speed of oncoming vehicles.
 - In meteorology, to track storms.

- In the medical field such as to draw echocardiograms and in medical ultrasonography to diagnose heart and vascular problems.
- It is used to measure the speed at which stars and galaxies are approaching or receding from us, in a mechanism named red shift or blue shift.

Source: NCERT

Q.3) The speed of light is maximum in which of the following medium?

- a) Solid
- b) Air
- c) Water
- d) Vacuum

ANS: D

Explanation: Light

- When light traveling in a vacuum enters a new transparent medium, such as air, water, or glass, the speed is reduced in proportion to the refractive index of the new material. That is, Speed of light in any medium = speed of light in vacuum/refractive index.
- Light has its maximum speed in a vacuum as the refractive index in a vacuum is 1.
- As the refractive index increases the speed of light in the medium decreases.

Source: NCERT

Q.4) Which of the following are known as the 'suicide bags' of the cell?

- a) Golgi apparatus
- b) Lysosome
- c) Ribosome
- d) Mitochondria

ANS: B

Explanation: Lysosomes

- They are organelle which is mostly found in animal cells; very rarely in plant cells. It is also called 'suicidal bags' because they are responsible for digestion.
- Each lysosome is surrounded by a membrane that maintains an acidic environment within the interior via a proton pump. Lysosomes contain a wide variety of hydrolytic enzymes (acid hydrolases) that break down macromolecules such as nucleic acids, proteins, and polysaccharides.
- These enzymes are active only in the lysosome's acidic interior; their acid-dependent activity protects the cell from self-degradation in case of lysosomal leakage or rupture, since the pH of the cell is neutral to slightly alkaline.

Source: NCERT

Q.5) A person with which of the following blood groups is said to be a universal recipient?

- a) O negative
- b) AB negative
- c) O positive
- d) AB Positive

ANS: D

Explanation: Universal Recipient

- A person who can accept a blood transfusion from any blood type is called a universal recipient.
- The immune system of a person with AB blood will accept blood from all possible donors, whether they have O, A, B, or AB blood.
- Blood contains red cells with type A antigen on their surface has in its serum (fluid) antibodies against type B red cells. If in transfusion, type B blood is injected into persons with type A blood, the red cells in the injected blood will be destroyed by the antibodies in the recipient's blood.
- In the same way, type A red cells will be destroyed by anti-A antibodies in type B blood. Type O blood can be injected into persons with type A, B, or O blood unless there is incompatibility with respect to some other blood group system also present. Persons with type AB blood can receive type A, B, or O blood.

Source: NCERT

Q.6) Which of the following is/are Plant Hormones?

1. Gibberellins
2. Cortisol
3. Abscissic acid

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) None

ANS: C

Explanation: Plant Hormones

- These are chemical compounds released by stimulated cells. These chemical compounds help in the growth and development of plants.
- When growing plants detect light, a hormone called auxin, synthesised at the shoot tip, helps the cells to grow longer. When light is coming from one side of the plant, auxin diffuses towards the shady side of the shoot. This concentration of auxin stimulates the cells to grow longer on the side of the shoot which is away from light. Thus, the plant appears to bend towards the light.
- Another example of plant hormones is gibberellins which, like auxins, help in the growth of the stem.
- Cytokinins promote cell division, and it is natural then that they are present in greater concentration in areas of rapid cell division, such as in fruits and seeds. These are examples of plant hormones that help in promoting growth. But plants also need signals to stop growing.
- Abscissic acid is one example of a hormone that inhibits growth. Its effects include wilting of leaves.

Source: NCERT

Q.7) Consider the following:

1. Agaricus
2. Azotobacter
3. Spirogyra

Which of the above is/are used as bio-fertilizer?

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

ANS: B

Explanation:

Bio fertilizer-The cultured micro-organisms packed in some carrier material for easy application in the field are called bio-fertilizers. Thus, the critical input in Biofertilizers is the microorganisms. Commonly produced biofertilizers are Rhizobium, Azotobacter, Phosphate Solubilizers, Blue-Green Algae, Azolla, Micorohizae.

Spirogyra, (genus Spirogyra), any member of a genus of some 400 species of free-floating green algae (division Chlorophyta) found in freshwater environments around the world. Named for their beautiful spiral chloroplasts, spirogyras are filamentous algae that consist of thin unbranched chains of cylindrical cells. They can form masses that float near the surface of streams and ponds, buoyed by oxygen bubbles released during photosynthesis. They are commonly used in laboratory demonstrations.

Agaricus is a genus of mushrooms containing both edible and poisonous species, with possibly over 300 members worldwide. The genus includes the common ("button") mushroom (Agaricus bisporus) and the field mushroom (Agcampestris), the dominant cultivated mushrooms of the West.

Source: ForumIAS

Q.8) Which one of the following is not found in animal cells?

- a) Free ribosomes
- b) Mitochondria
- c) Nucleolus
- d) Cell wall

ANS: D

Explanation:

Animal cells do not have cell walls. Cell walls are found in plant cells. Other given organelles like Mitochondria, Nucleolus and Free ribosomes are present in animal cells.

The cell parts found only in plants but not in animals are:

- Cell wall
- Large central vacuole
- Chloroplasts (plastids)

The cell parts found only in animals but not in plants are:

- Lysosomes
- Centrioles
- Cilia (some plant sperm have flagella)

Source: NCERT

Q.9) Which one of the following acids is also known as Vitamin C?

- a) Methanoic acid
- b) Ascorbic acid
- c) Lactic acid
- d) Tartaric acid

ANS: B

Explanation:

- Vitamin C, also known as ascorbic acid, is a vitamin. It is found fresh fruits, berries and vegetables. It is one of the water-soluble vitamins. Vitamin C was first discovered in 1928. In 1932, it was proved to stop the sickness called scurvy.
- Vitamin C is important in wound healing. Without enough vitamin C, a person can get a sickness called scurvy. Vitamin C is an essential nutrient involved in the repair of tissue and the enzymatic production of certain neurotransmitters. It is required for the functioning of several enzymes and is important for an immune system function. It also functions as an antioxidant.
- Lack of vitamin C was a serious health problem on long ocean trips where supplies of fresh fruit were quickly used up. Many people died from scurvy on such trips. Most animals make their own vitamin C. Some mammals cannot. Those that cannot include the main suborder of primates, the Haplorrhini: tarsiers, monkeys and apes, including humans. Others are bats, capybaras and guinea pigs.

Source: NCERT

Q.10) Consider the following statement:

"The atomic number of an element is a more fundamental property than its atomic mass."
Who among the following scientists has made the above statement?

- a) Dmitri Mendeleev
- b) Henry Moseley
- c) J. J. Thomson
- d) Ernest Rutherford

ANS: B

Explanation:

- The scientist who first of all, showed that the atomic number is a more fundamental property of an element than its atomic mass was Henry Moseley. He declared this concept in the Year, 1913. He is best known for the Moseley's Law and contributions to Physics. Moseley is also associated with the publication of the very first Long Form or Modern periodic table that is used to date.
- Moseley performed experiments and studied the frequencies of the rays emitted from the elements. With these experiments, he concluded that the atomic number is a more fundamental property of an element than its atomic mass.
- The atomic number is a more fundamental property of an element than its atomic mass. On arranging elements in the increasing order of their atomic numbers, similarities appear in physical and chemical properties at regular intervals.

Source: NCERT

Economy

Q.1) In which one of the following places, was Asia's first EPZ was set up in 1965?

- a) Kandla, India
- b) Chittagong, Bangladesh
- c) Anshun, China
- d) Tan Thuan, Vietnam

ANS: A

Explanation:

India was one of the first in Asia to recognize the effectiveness of the Export Processing Zone (EPZ) model in promoting exports, with Asia's first EPZ set up in Kandla in 1965. With a view to overcome the shortcomings experienced on account of the multiplicity of controls and clearances; absence of world-class infrastructure, and an unstable fiscal regime and with a view to attract larger foreign investments in India, the Special Economic Zones (SEZs) Policy was announced in April 2000.

Source: sezindia.nic.in

Q.2) Goods and Services Tax (GST) was introduced as a part of indirect tax reforms in India. Which of the following are the salient features of the GST?

- 1. GST is applicable either on manufacture of goods or on sale of goods or on provisions of services.
- 2. GST is applicable on supply of goods and services
- 3. GST is based on the principle of destinations based consumption taxation
- 4. GST is levied at rates decided by GST Council

Select the correct answer using the codes given below:

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

ANS: C

Explanation: Goods and Services Tax (GST)

- Goods and Services Tax(GST) is a comprehensive indirect tax on the manufacture, sale, and consumption of goods and services throughout India. It replaced the existing taxes levied by the central and state governments. It is a single indirect tax for the whole nation, which made India one unified common market.
- Likewise, it is a destination-based tax applied on goods and services at the place where final/actual consumption happens.
- GST is applied to all goods other than crude petroleum, motor spirit, diesel, aviation turbine fuel, and natural gas and alcohol for human consumption.
- There are four slabs for taxes for both goods and services- 5%, 12%, 18%, and 28%.
- Although GST aimed at levying a uniform tax rate on all products and services, four different tax slabs were introduced because daily necessities could not be subject to the same rate as luxury items.

About GST Council

- GST Council is the most important part of India's GST regime. The council is responsible for recommending rates of tax, period of levy of additional tax, principles

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of supply, the threshold for exemption, floor level and bands of taxation rate, special provisions to certain states, etc.

- Article 279A of the constitution enables the formation of the GST Council by the President to administer & govern GST. The Union Finance Minister of India is a Chairman of the GST Council. Ministers nominated by the state governments are members of the GST Council.

Source: ForumIAS

Q.3) “A proportion of the total deposits and reserves of the commercial banks is to be kept with the central Bank (RBI).” Which of the following represents this proportion?

- a) Reverse Repo Rate
- b) Statutory Liquidity Ratio
- c) Cash Reserve Ratio
- d) Minimum Reserve System

ANS: C

Explanation: Cash Reserve Ratio

Under cash reserve ratio (CRR), the commercial banks have to hold a certain minimum amount of deposit as reserves with the central bank. The percentage of cash required to be kept in reserves as against the bank's total deposits, is called the Cash Reserve Ratio. The cash reserve is either stored in the bank's vault or is sent to the RBI. Banks can't lend the CRR money to corporates or individual borrowers, banks can't use that money for investment purposes. And Banks don't earn any interest on that money.

Why do banks have to reserve cash with RBI?

Since a part of the bank's deposits is with the Reserve Bank of India, it ensures the security of the amount in case of any emergencies. The cash is readily available when customers want their deposits back. At the time of high inflation, the government needs to ensure that excess money is not available in the economy. CRR helps in keeping inflation under control. If there is a threat of high inflation in the economy, RBI increases the CRR, so that banks need to keep more money in reserves, effectively reducing the amount of money that is available with the banks. This curbs excess flow of money in the economy.

When there is a need to pump funds into the market, the RBI lowers the CRR rate, which in turn, helps the banks provide loans to a large number of businesses and industries for investment purposes. Lower CRR also boosts the growth rate of the economy.

Source: <https://www.business-standard.com/>

Q.4) Which of the following pairs are correctly matched?

- | | |
|---------------------------|-------------------------|
| 1. Bitcoin | National Stock Exchange |
| 2. Moody's | Credit Rating |
| 3. Special Drawing Rights | World Bank |
| 4. FRBM Act | Fiscal Deficit |

Select the correct answer using the codes given below:

- a) Only one Pair
- b) Only two pairs
- c) Only Three pairs
- d) All four pairs

ANS: B

Explanation:

Credit Rating

- A credit rating is a quantified assessment of the creditworthiness of a borrower in general terms or with respect to a particular debt or financial obligation.
- A credit rating can be assigned to any entity that seeks to borrow money—an individual, corporation, state or provincial authority, or sovereign government.
- A rating agency is a company that assesses the financial strength of companies and government entities, especially their ability to meet principal and interest payments on their debts.
- Fitch Ratings, Moody's Investors Service and Standard & Poor's (S&P) are the big three international credit rating agencies controlling approximately 95% of global ratings business.
- In India, there are six credit rating agencies registered under Securities and Exchange Board of India (SEBI) namely, CRISIL, ICRA, CARE, SMERA, Fitch India and Brickwork Ratings.

Special Drawing Rights

The SDR is neither a currency nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. SDRs can be exchanged for these currencies. The SDR serves as the unit of account of the IMF and some other international organizations.

FRBM Act

- The Fiscal Responsibility and Budget Management Act (FRBM Act), 2003, establishes financial discipline to reduce fiscal deficit.
- The FRBM Act aims to introduce transparency in India's fiscal management systems. The Act's long-term objective is for India to achieve fiscal stability and to give the Reserve Bank of India (RBI) flexibility to deal with inflation in India.
- The FRBM Act was enacted to introduce more equitable distribution of India's debt over the years.

Source: ForumIAS

Q.5) A country is said to be in debt trap if:

- a) It has to abide by the conditionality imposed by the International Monetary Funds.
- b) It is required to borrow money to make interest payments on outstanding loans.
- c) It has been refused loans or aide by creditors.
- d) The World Bank charges a very high rate of interest on outstanding as well as new loans:

ANS: B

Explanation: Debt trap

- The debt trap is a situation where one is forced to over consume loans to repay your existing debts.
- A Debt trap is a situation where you're forced to take new loans in order to repay your existing debt obligations. And before you know what a debt trap is, you fall into a situation where the amount of debt you owe takes a turn for the worse and spirals out of control.

Source: ForumIAS

Q.6) Consider the following statement:

1. No Five Year Plan was made by The Government of India during the late 1960s.
2. Indo Pakistan conflict, drought and inflation erased the financial resources required for planning

Which of the following statements is/are correct?

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

ANS: C

Explanation:

In the late 1960s, from 1966 to 1969 there were no five-year plans launched because of which the period is known as Plan Holidays.

After the Sino-India (1962) war, the financial resources of India were stressed. The country was trying to cope with the aftermath of war.

But, the Indo-Pakistani (1965) war, destabilised the economy and erased most of the financial resources of the country and became the foremost reason behind no five-year plans in the late 1960s.

Source: ForumIAS

Q.7) Disguised unemployment is said to occur when?

- a) Demand for labour declines compare to its supply for demographic reasons
- b) Demand for labour reduce because of a seasonal swing
- c) More labour is engaged in an occupation than optimally required
- d) Jobs get reduced because of a negative business cycle.

ANS: C

Explanation: Disguised unemployment is unemployment that does not affect aggregate economic output. It occurs when productivity is low and too many workers are filling too few jobs. It can refer to any part of the population that is not employed at full capacity.

Source: ForumIAS

Q.8) Narsimham Committee was related to which of the following reforms?

- a) High Education Reforms
- b) Tax Structure Reforms
- c) Banking Structure reforms
- d) Planning implementation reforms

ANS: C

Explanation:

Banks are considered the backbone of any economy. In the late 1980s, Indian economy was going through a series of economic crises, including the Balance of Payment crisis. From near depletion in foreign reserves in mid-1991 to becoming the 3rd largest economy in the world in 2011, India has come a long way. One of the major contributions in that journey has come from banks.

India has both public and private sector banks. As India liberalised its economy in 1991, it was felt that banks were not performing efficiently. During the economic crises, it was recognised that banks have a crucial role to play in the economy and, hence, the banking

sector had to be more competitive and effective. For that, Ministry of Finance under then finance minister Dr Manmohan Singh set up Narasimham Committee to analyse India's banking sector and recommend reforms.

The Committee was set up under the chairmanship of Maidavolu Narasimham. He was the 13th governor of the Reserve Bank of India (RBI) from 2 May 1977 to 30 November 1977. There was another Committee, this time under P Chidambaram as the finance minister, headed by Narasimham, which was formed in 1998. The first Committee was set up in 1991 and is referred to as the Narasimham Committee- I, and the 1998 Committee is known as the Narasimham Committee – II.

The first Narasimham Committee made the following recommendations for the growth of the banking sector.

- A 4-tier hierarchy for the Indian banking system with 3 or 4 major public sector banks at the top and rural development banks for agricultural activities at the bottom
- A quasi-autonomous body under RBI for supervising banks and financial institutions
- Reduction in statutory liquidity ratio
- Reaching of 8% capital adequacy ratio
- Deregulation of Interest rates
- Full disclosure banks' accounts and proper classification of assets
- Setting up Asset Reconstruction fund

Source: ForumIAS

Q.9) Khadi and Village Industry Commission was established in which of the following Plan?

- a) Third Plan
- b) Fourth Plan
- c) Second Plan
- d) First Plan

ANS: C

Explanation: The Khadi and Village Industries Commission (KVIC) is a statutory body formed in April 1957 (During 2nd Five Year plan)(as per an RTI) by the Government of India, under the Act of Parliament, 'Khadi and Village Industries Commission Act of 1956'.

Source: ForumIAS

Q.10) Dependency Theory is the notion:

- a) That resources flow from a periphery of poor and underdeveloped states to a core of wealthy states, enriching the latter at the expense of the former
- b) That resources flows between Third World Countries
- c) That resources flows among countries of a region
- d) That resources flows among the advanced countries

ANS: A

Explanation: Dependency theory, an approach to understanding economic underdevelopment that emphasizes the putative constraints imposed by the global political and economic order. First proposed in the late 1950s by the Argentine economist and statesman Raúl Prebisch, dependency theory gained prominence in the 1960s and '70s.

According to dependency theory, underdevelopment is mainly caused by the peripheral position of affected countries in the world economy. Typically, underdeveloped countries offer cheap labour and raw materials on the world market. These resources are sold to advanced economies, which have the means to transform them into finished goods. Underdeveloped countries end up purchasing the finished products at high prices, depleting the capital they might otherwise devote to upgrading their own productive capacity. The result is a vicious cycle that perpetuates the division of the world economy between a rich core and a poor periphery.

Source: ForumIAS

Indian Polity

Q.1) The Government of India Act 1935 provided for which of the following:

- a) dyarchy in the provinces and at the center
- b) autonomy to the provinces and dyarchy at the center
- c) abolition of the system of dyarchy
- d) autonomy at the center as well as the provinces

ANS: B

Explanation:

Government of India Act of 1935

The Act marked a second milestone towards a completely responsible government in India. It was a lengthy and detailed document having 321 Sections and 10 Schedules.

Features of the Act

It provided for the establishment of an All-India Federation consisting of provinces and princely states as units.

1. The Act divided the powers between the Centre and units in terms of three lists—Federal List (for Centre, with 59 items), Provincial List (for provinces, with 54 items) and the Concurrent List (for both, with 36 items). Residuary powers were given to the Viceroy. However, the federation never came into being as the princely states did not join it.

2. It abolished dyarchy in the provinces and introduced 'provincial autonomy' in its place. The provinces were allowed to act as autonomous units of administration in their defined spheres. Moreover, the Act introduced responsible governments in provinces, that is, the governor was required to act with the advice of ministers responsible to the provincial legislature. This came into effect in 1937 and was discontinued in 1939.

3. It provided for the adoption of dyarchy at the Centre. Consequently, the federal subjects were divided into reserved subjects and transferred subjects. However, this provision of the Act did not come into operation at all.

4. It introduced bicameralism in six out of eleven provinces. Thus, the legislatures of Bengal, Bombay, Madras, Bihar, Assam and the United Provinces were made bicameral consisting of a legislative council (upper house) and a legislative assembly (lower house). However, many restrictions were placed on them.

5. It further extended the principle of communal representation by providing separate electorates for depressed classes (scheduled castes), women and labour (workers).

6. It abolished the Council of India, established by the Government of India Act of 1858. The secretary of state for India was provided with a team of advisors.

7. It extended franchise. About 10 per cent of the total population got the voting right.

8. It provided for the establishment of a Reserve Bank of India to control the currency and credit of the country.

9. It provided for the establishment of not only a Federal Public Service Commission but also a Provincial Public Service Commission and Joint Public Service Commission for two or more provinces.

Source: Indian Polity by Laxmikanth

Q.2) The doctrine of the “basic structure” of the constitution has been laid by which of the following?

- a) Shankari Prasad case
- b) Golak Nath case
- c) Kesavananda Bharati case
- d) Minerva Mills case

ANS: C

Explanation:

In the Kesavananda Bharati case³ (1973), the Supreme Court overruled its judgement in the Golak Nath case (1967). It upheld the validity of the 24th Amendment Act (1971) and stated that Parliament is empowered to abridge or take away any of the Fundamental Rights. At the same time, it laid down a new doctrine of the ‘basic structure’ (or ‘basic features’) of the Constitution. It ruled that the constituent power of Parliament under Article 368 does not enable it to alter the ‘basic structure’ of the Constitution. This means that the Parliament cannot abridge or take away a Fundamental Right that forms a part of the ‘basic structure’ of the Constitution.

The doctrine of basic structure of the constitution was reaffirmed and applied by the Supreme Court in the Indira Nehru Gandhi case^{3a} (1975). In this case, the Supreme Court invalidated a provision of the 39th Amendment Act (1975) which kept the election disputes involving the Prime Minister and the Speaker of Lok Sabha outside the jurisdiction of all courts. The court said that this provision was beyond the amending power of Parliament as it affected the basic structure of the constitution.

Source: Indian Polity by Laxmikanth

Q.3) Which of the following cases is also known as the IX schedule case?

- a) I.R.Coelho Case
- b) Keshvananda Bharati Case
- c) S.R. Bommai Case
- d) Indira Nehru Gandhi Case

ANS: A

Explanation:

Name of the Case (Year)	Elements of the Basic Structure (As Declared by the Supreme Court)
Kesavananda Bharati case (1973) (popularly known as the Fundamental Rights Case)	1. Supremacy of the Constitution 2. Separation of powers between the legislature, the executive and the judiciary 3. Republic and democratic form of government 4. Secular character of the constitution 5. Federal character of the constitution 6. Sovereignty and unity of India 7. Freedom and dignity of the individual 8. Mandate to build a welfare state 9. Parliamentary System
Indira Nehru Gandhi case (1975) (popularly known as the Election Case)	1. India as a sovereign democratic republic 2. Equality of status and opportunity of an individual

	<ol style="list-style-type: none">3. Secularism and freedom of conscience and religion4. Government of laws and not of men (i.e., Rule of Law)5. Judicial review6. Free and fair elections which is implied in democracy
S.R. Bommai Case ¹⁷ (1994)	<ol style="list-style-type: none">1. Federalism2. Secularism3. Democracy4. Unity and integrity of the nation5. Social justice6. Judicial review
I.R. Coelho Case ²³ (2007) (popularly known as IX Schedule Case)	<ol style="list-style-type: none">1. Rule of law2. Separation of powers3. Principles (or essence) underlying fundamental rights4. Judicial review5. Principle of equality

Source: Indian Polity by Laxmikanth

Q.4) Which of the following Amendment provided for the Fundamental duty to provide opportunities for education to his child between the age of six and fourteen years?

- a) 91st Constitutional Amendment
- b) 86th Constitutional Amendment
- c) 75th Constitutional Amendment
- d) 32nd Constitutional Amendment

ANS: B

Explanation:

Eighty-Sixth Amendment Act, 2002

1. Made elementary education a fundamental right. The newly-added Article 21-A declares that “the State shall provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may determine”.
2. Changed the subject matter of Article 45 in Directive Principles. It now reads— “The State shall endeavour to provide early childhood care and education for all children until they complete the age of six years”.
3. Added a new fundamental duty under Article 51-A which reads— “It shall be the duty of every citizen of India who is a parent or guardian to provide opportunities for education to his child or ward between the age of six and fourteen years”.

Source: Indian Polity by Laxmikanth

Q.5) Consider the following statements about Fundamental duties:

1. Sardar Swaran Singh Committee was set up in 1976 to make recommendations about Fundamental duties.
2. All the recommendations were incorporated in the 42nd Constitutional amendment Act of 1976.

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:

SWARAN SINGH COMMITTEE RECOMMENDATIONS

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.

Though the Swaran Singh Committee suggested the incorporation of eight Fundamental Duties in the Constitution, the 42nd Constitutional Amendment Act (1976) included ten Fundamental Duties.

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

1. 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.
2. 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.
3. Duty to pay taxes should also be a Fundamental Duty of the citizens.

Source: Indian Polity by Laxmikanth

Q.6) Consider the following statements:

1. Living wage includes food, shelter and clothing
2. Minimum wage includes education, health and insurance

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:

‘Living wage’ is different from ‘minimum wage’, which includes the bare needs of life like food, shelter and clothing. In addition to these bare needs, a ‘living wage’ includes education, health, insurance, etc. A ‘fair wage’ is a mean between ‘living wage’ and ‘minimum wage’.

Source: Indian Polity by Laxmikanth

Q.7) Which of the following statements is/are correct?

1. Lok Adalat is a non permanent Constitutional body.
2. Its awards are final as no appeal lies before any court against them.

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:

The Legal Services Authorities Act (1987) has established a nation-wide network to provide free and competent legal aid to the poor and to organise lok adalats for promoting equal justice. Lok adalat is a statutory forum for conciliatory settlement of legal disputes. It has been given the status of a civil court. Its awards are enforceable, binding on the parties and final as no appeal lies before any court against them.

Source: Indian Polity by Laxmikanth

Q.8) The directive principle of providing just and humane conditions of work and maternity relief is under which of the following principles?

- a) Gandhian Principle
- b) Liberal-Intellectual Principle
- c) Socialistic Principles
- d) None of the above

ANS: C

Explanation:

Socialistic Principles

These principles reflect the ideology of socialism. They lay down the framework of a democratic socialist state, aim at providing social and economic justice, and set the path towards welfare state. They direct the state:

1. To promote the welfare of the people by securing a social order permeated by justice—social, economic and political—and to minimize inequalities in income, status, facilities and opportunities⁴ (Article 38).
2. To secure (a) the right to adequate means of livelihood for all citizens; (b) the equitable distribution of material resources of the community for the common good; (c) prevention of concentration of wealth and means of production; (d) equal pay for equal work for men and women; (e) preservation of the health and strength of workers and children against forcible abuse; and (f) opportunities for healthy development of children (Article 39).
3. To promote equal justice and to provide free legal aid to the poor (Article 39 A).
4. To secure the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement (Article 41).
5. To make provision for just and humane conditions of work and maternity relief (Article 42).
6. To secure a living wage, a decent standard of life and social and cultural opportunities for all workers (Article 43).
7. To take steps to secure the participation of workers in the management of industries (Article 43 A).
8. To raise the level of nutrition and the standard of living of people and to improve public health (Article 47).

Source: Indian Polity by Laxmikanth

Q.9) Right to property is a:

- a) legal right
- b) constitutional right
- c) fundamental right
- d) option a and b

ANS: D

Explanation:

The 44th Amendment Act of 1978 abolished the right to property as a Fundamental Right by repealing Article 19(1)(f) and Article 31 from Part III. Instead, the Act inserted a new Article 300A in Part XII under the heading 'Right to Property'. It provides that no person shall be deprived of his property except by authority of law. Thus, the right to property still remains a legal right or a constitutional right, though no longer a fundamental right. It is not a part of the basic structure of the Constitution.

Source: Indian Polity by Laxmikanth

Q.10) Which one of the following literally means 'we command'?

- a) Habeas corpus
- b) Mandamus
- c) Certiorari
- d) Quo-warranto

ANS: B

Explanation:

It literally means 'we command'. It is a command issued by the court to a public official asking him to perform his official duties that he has failed or refused to perform. It can also be issued against any public body, a corporation, an inferior court, a tribunal or government for the same purpose.

The writ of mandamus cannot be issued:

- (a) against a private individual or body;
- (b) to enforce departmental instruction that does not possess statutory force;
- (c) when the duty is discretionary and not mandatory;
- (d) to enforce a contractual obligation;
- (e) against the president of India or the state governors; and
- (f) against the chief justice of a high court acting in judicial capacity.

Source: Indian Polity by Laxmikanth

Geography

Q.1) Consider the following statements:

1. Soil Survey of India was established in 1856.
2. The National Bureau of Soil Survey is an Institute under the control of the Indian Council of Agricultural Research (ICAR).

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: Since Independence, scientific surveys of soils have been conducted by various agencies. Soil Survey of India, established in 1956, made comprehensive studies of soils in selected areas like in the Damodar Valley. The National Bureau of Soil Survey and the Land Use Planning an Institute under the control of the Indian Council of Agricultural Research (ICAR) did a lot of studies on Indian soils. In their effort to study soil and to make it comparable at the international level, the ICAR has classified the Indian soils on the basis of their nature and character as per the United States Department of Agriculture (USDA) Soil Taxonomy.

Source: NCERT

Q.2) Which of the following order of soil classification covers the maximum of India's area?

- a) Vertisol
- b) Alfisol
- c) Inceptisol
- d) Ultisol

ANS: C

Explanation:

ICAR has classified the soils of India into the following order as per the USDA soil taxonomy

Sl. No.	Order	Area (in Thousand Hectares)	Percentage
(i)	Inceptisols	130372.90	39.74
(ii)	Entisols	92131.71	28.08
(iii)	Alfisols	44448.68	13.55
(iv)	Vertisols	27960.00	8.52
(v)	Aridisols	14069.00	4.28
(vi)	Ultisols	8250.00	2.51
(vi)	Mollisols	1320.00	0.40
(viii)	Others	9503.10	2.92
Total			100

Source : Soils of India, National Bureau of Soil Survey and Land Use Planning, Publication Number 94

Source: NCERT

Q.3) Which of the following statements about alluvial soils is/are correct?

1. Bhangar is the new alluvium and is deposited by floods annually.
2. Both the Khadar and Bhangar soils contain calcareous concretions.

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:

The alluvial soils vary in nature from sandy loam to clay. They are generally rich in potash but poor in phosphorous. In the Upper and Middle Ganga plain, two different types of alluvial soils have developed, viz. Khadar and Bhangar. Khadar is the new alluvium and is deposited by floods annually, which enriches the soil by depositing fine silts. Bhangar represents a system of older alluvium, deposited away from the flood plains. Both the Khadar and Bhangar soils contain calcareous concretions (Kankars). These soils are ore loamy and clayey in the lower and middle Ganga plain and the Brahmaputra valley. The sand content decreases from the west to east.

Source: NCERT

Q.4) Which of the following soil is more suitable for tree crops like cashewnut?

- a) Black Soil
- b) Alluvial Soil
- c) Red and Yellow Soil
- d) Red Laterite soil

ANS: D

Explanation:

Red laterite soils in Tamil Nadu, Andhra Pradesh and Kerala are more suitable for tree crops like cashewnut. Laterite soils are widely cut as bricks for use in house construction. These soils have mainly developed in the higher areas of the Peninsular plateau. The laterite soils are commonly found in Karnataka, Kerala, Tamil Nadu, Madhya Pradesh and the hilly areas of Odisha and Assam.

Source: NCERT

Q.5) Consider the following statements about Peaty Soil:

1. They are found in the areas of heavy rainfall and high humidity.
2. These soils are normally heavy and black in colour.

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: Peaty Soils

They are found in the areas of heavy rainfall and high humidity, where there is a good growth of vegetation. Thus, large quantity of dead organic matter accumulates in these

areas, and this gives a rich humus and organic content to the soil. Organic matter in these soils may go even up to 40-50 per cent. These soils are normally heavy and black in colour. At many places, they are alkaline also. It occurs widely in the northern part of Bihar, southern part of Uttarakhand and the coastal areas of West Bengal, Odisha and Tamil Nadu.

Source: NCERT

Q.6) Which of the following statement with respect to disasters is/are correct?

1. Natural Hazards may be swift or permanent aspects of the respective environmental settings.
2. Natural disasters are relatively sudden and cause large scale, loss of property and disturbance to social systems and life over which people have a little or no control.

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:

Natural Hazards are elements of circumstances in the Natural environment that have the potential to cause harm to people or property or both. These may be swift or permanent aspects of the respective environmental settings like currents in the oceans, steep slope and unstable structural features in the Himalayas or extreme climatic conditions in deserts or glaciated areas. As compared to natural hazards, natural disasters are relatively sudden and cause large scale, widespread death, loss of property and disturbance to social systems and life over which people have a little or no control. Thus, any event can be classed as disaster when the magnitude of destruction and damage caused by it is very high.

Generally, disasters are generalized experiences of people the world over, and no two disasters are similar and comparable to each other. Every disaster is unique in terms of the local socio-environmental factors that control it, the social response it generates, and the way each social group negotiates with it. However, the opinion mentioned above is indicative of three important things. Firstly, the magnitude, intensity, frequency and damages caused by natural disasters have increased over the years. Secondly, there is a growing concern among people the world over to deal with the menace created by these so that the loss of human life and property can be minimised. And finally, significant changes have taken place in the pattern of natural disasters over the years.

Source: NCERT

Q.7) Which of the following is not “atmospheric” type of natural disaster?

- a) Storm Surge
- b) Tornadoes
- c) Blizzards
- d) All are atmospheric type of natural Disaster

ANS: A

Explanation:

Table 7.2 : Classification of Natural Disasters			
<i>Atmospheric</i>	<i>Terrestrial</i>	<i>Aquatic</i>	<i>Biological</i>
Blizzards Thunderstorms Lightning Tornadoes Tropical Cyclone Drought Hailstorm Frost, Heat Wave or Loo.Cold Waves, etc.	Earthquakes Volcanic Eruptions Landslides Avalanches Subsidence Soil Erosion	Floods Tidal Waves Ocean Currents Storm Surge Tsunami	Plants and Animals as colonisers (Locusts, etc.). Insects infestation— fungal, bacterial and viral diseases such as bird flu, dengue, etc.

Source: NCERT

Q.8) Consider the following pairs:

Type	Natural Disaster
1. Terrestrial	Subsidence
2. Biological	Insects infestation
3. Aquatic	Tropical Cyclone
4. Atmospheric	Ocean Currents

Which 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: B

Explanation:

Table 7.2 : Classification of Natural Disasters			
<i>Atmospheric</i>	<i>Terrestrial</i>	<i>Aquatic</i>	<i>Biological</i>
Blizzards Thunderstorms Lightning Tornadoes Tropical Cyclone Drought Hailstorm Frost, Heat Wave or Loo.Cold Waves, etc.	Earthquakes Volcanic Eruptions Landslides Avalanches Subsidence Soil Erosion	Floods Tidal Waves Ocean Currents Storm Surge Tsunami	Plants and Animals as colonisers (Locusts, etc.). Insects infestation— fungal, bacterial and viral diseases such as bird flu, dengue, etc.

Source: NCERT

Q.9) Which of the following city is not under “Very low damage risk zone of Earthquake”?

- a) Chennai
- b) Bengaluru
- c) Raipur
- d) Hyderabad

ANS: A

Explanation:

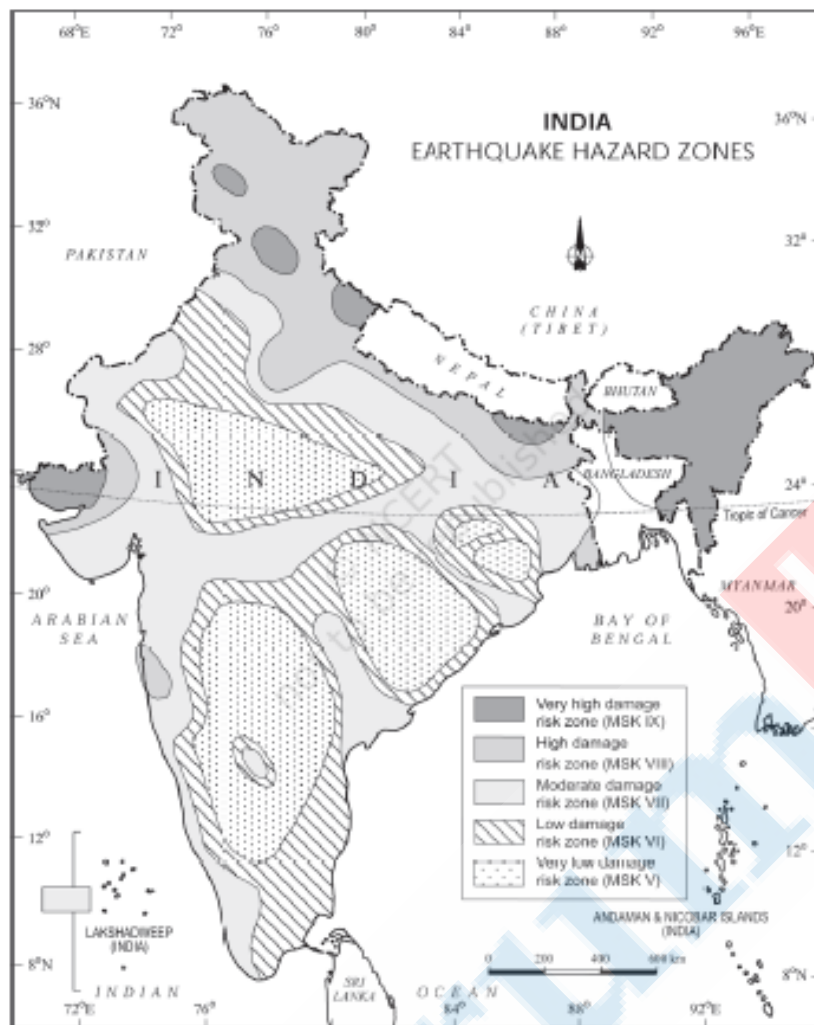


Figure 7.2 : India: Earthquake Hazard Zones

Source: NCERT

Q.10) Which of the following statements about tropical cyclone is/are correct?

1. The centre of the cyclone is mostly a cold and high-pressure, cloudless core.
2. Generally, the isobars are closely placed to each other showing high-pressure gradients.

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: Structure of Tropical Cyclone

Tropical cyclones are characterised by large pressure gradients. The centre of the cyclone is mostly a warm and low-pressure, cloudless core known as eye of the storm. Generally, the isobars are closely placed to each other showing high-pressure gradients. Normally, it varies between 14-17mb/100 km, but sometimes it can be as high as 60mb/100km. Expansion of the wind belt is about 10-150 km from the centre.

Source: NCERT

Environment

Q.1) “These species have the ability to capture the imagination of the public and include people to support conservation action and/or to donate funds.” Which of the following is described in the above statement?

- a) Surrogate Species
- b) Flagship Species
- c) Foundation Species
- d) Umbrella Species

ANS: B

Explanation: Flagship Species

- Flagship species are species that have the ability to capture the imagination of the public and induce people to support conservation action and/or to donate funds.
- These are popular charismatic species that serve as symbols and rallying points to stimulate conservation awareness and action.
- Flagship species can represent an environmental feature, cause, organisation or geographic region.

Source: NCERT

Q.2) Which of the following term is used for the plants adapted to grow in bright light?

- a) Sciophytes
- b) Hydrophytes
- c) Heliophytes
- d) Halophytes

ANS: C

Explanation: Heliophytes

These are plants adapted to grow in bright light. They have the following adaptations to survive:

- Shorter and thicker internodes
- Smaller and thicker leaves, leaves are pale green in color with shining surface or hairy growth
- The root system is extensive
- Stomata are small and sunken

Source: NCERT

Q.3) In which of the following type of interaction neither species is affected by association with the other:

- a) Symbiosis
- b) Amensalism
- c) Neutralism
- d) Predation

ANS: C

Explanation: Neutralism

- Neutralism, in which neither population is affected by association with the other.
- Examples: Rabbits, deer, frogs, live together in grassland with no interaction between them.

Source: NCERT

Q.4) Consider the following statements:

1. Plants growing in nutrient-deficient soils or oligotrophic soil have special adaptations in their roots.
2. The roots of these plants form an association with the fungi for the absorption of minerals and water from the soil.

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

- a) Mycorrhizae
- b) Heliophyte
- c) Pneumatophores
- d) Halophytes

ANS: A

Explanation: Mycorrhizae

Plants growing in nutrient-deficient soils or oligotrophic soil have special adaptations in their roots. The roots of these plants form an association with the fungi for the absorption of minerals and water from the soil. This association between plant roots and fungi is called Mycorrhizae.

Source: NCERT

Q.5) Consider the following statements regarding the Phosphorus Cycle:

1. Phosphorous has a vital role in cell development.
2. Rocks release phosphate ions when in contact with rainwater.

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

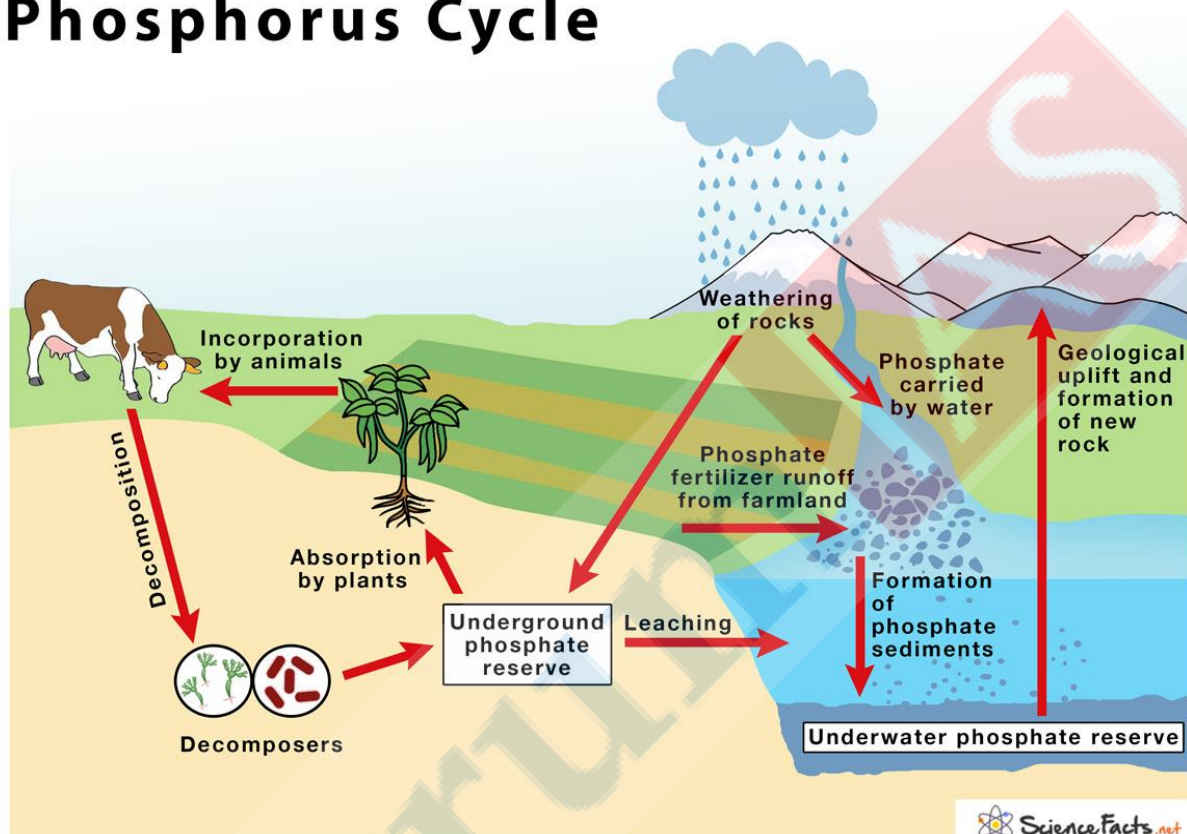
ANS: C

Explanation: Phosphorus Cycle

- Phosphorus is an element that can be found in several compound forms in water, soil, and sediments.
- It is an essential nutrient needed for the growth of plants and animals as well.
- It has a vital role in cell development and is a key component of molecules that store energy.
- Phosphorus occurs in nature as the phosphate ion.
- In addition to phosphate runoff as a result of human activity, natural surface runoff also takes place. It is leached from phosphate-containing rock by weathering, thus sending phosphates into rivers, lakes, and the ocean. This rock has its origins in the ocean.
- Rocks when in contact with rainwater, release phosphate ions and other minerals over time.
- This inorganic phosphate is then distributed in soils and water.
- Plants then take up inorganic phosphate from the soil, and these plants may then be consumed by animals.

- The phosphate is then incorporated into organic molecules such as DNA, and when plants or animals die and decay, the organic phosphate is returned to the soil.
- Bacteria in the soil then breaks down the organic matter into forms of phosphate that are absorbable by plants. It is also a process called mineralisation.
- Phosphorus in the soil can then end up in waterways and oceans and can be incorporated into sediments over time.

Phosphorus Cycle



Q.6) Arrange the following zones of lentic waterbody from top to bottom:

1. Limnetic Zone
2. Benthic Zone
3. Littoral Zone
4. Profundal Zone

Select the correct answer using the codes given below:

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

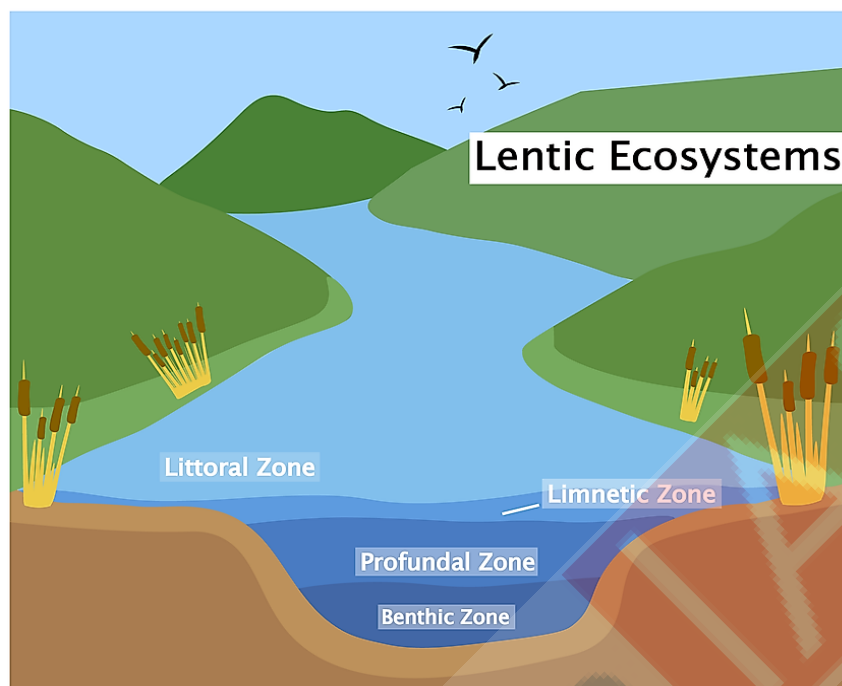
ANS: C

Explanation: The zones of a lentic waterbody:

A lentic aquatic body can be divided into four major zones, each of which has its own characteristics.

- Littoral zone
- Limnetic zone
- Profundal zone

- Benthic Zone



Source: NCERT

Q.7) Which of the two materials constitute approximately 85% of the dissolved materials in seawater?

- a) Sodium and Potassium
- b) Sodium and Chlorine
- c) Oxygen and Carbon
- d) Calcium and Oxygen

ANS: B

Explanation: Marine Ecosystem

- Marine ecosystems cover approximately 71% of the Earth's surface and contain approximately 97% of the planet's water. They generate 32% of the world's net primary production.
- They are distinguished from freshwater ecosystems by the presence of dissolved compounds, especially salts, in the water.
- Approximately 85% of the dissolved materials in seawater are sodium and chlorine.
- Seawater has an average salinity of 35 parts per thousand (ppt) of water. Actual salinity varies among different marine ecosystems.

Source: NCERT

Q.8) 'A Realm is a continent or sub-continent-sized area with unifying features of geography and fauna & flora'. Which of the following is not one of eight recognized bio-geographic realms?

- a) Antarctic realm
- b) Oriental realm
- c) Australian realm
- d) Icelandic realm

ANS: D

Explanation: Bio Geographic Realm

Bio geographic realms are large spatial regions within which ecosystems share a broadly similar biota.

Scholars have recognized eight Terrestrial biogeographic realms:

- Nearctic realm
- Neotropical realm
- Palearctic realm
- Indo-Malayan/Oriental realm
- Afrotropical/Ethiopian realm
- Oceania realm
- Australian realm
- Antarctic realm

Source: NCERT

Q.9) Which of the following regions of India has the lowest floral endemism?

- a) Western and Eastern Ghats
- b) Western Himalaya
- c) North-eastern Himalayas
- d) Andaman & Nicobar Islands

ANS: D

Explanation: Floral Endemism in India

Floral Endemism is the phenomenon of flower species being unique to a defined geographical area. Its measure defines the diversity of species at any location.

In India, the sequence of floral endemism is (in decreasing order):

- Peninsular India including western and Eastern Ghats (about 2,600 species).
- Eastern Himalaya and north-eastern region (about 2,500 species).
- North-western Himalaya (about 800 species).
- Andaman & Nicobar Islands (about 250 species).

Source: NCERT

Q.10) Consider the following part of the tree:

- 1. Bark
- 2. Cambium
- 3. Annual Ring

Which of the above given part is/are helpful in determining its age?

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

ANS: C

Explanation: Annual Rings

- Inside the trunk of a tree, there are a number of growth rings.
- Each year of the tree's life, a new ring is added so it is referred to as the annual rings.
- It is used to calculate Dendro-Chronology i.e. Age of a tree and Paleo-Climatology.
- The age of a tree can be determined by the number of growth rings. The size of the growth ring is determined in part by environmental conditions - temperature, water availability.

Source: NCERT

History

Q.1) Who among the following divided Indian history into three periods – Hindu, Muslim and British?

- a) James Mill
- b) Jadunath Sarkar
- c) Surendra Nath Sen
- d) Bipin Chandra

ANS: A

Explanation: In 1817, James Mill, a Scottish economist and political philosopher, published a massive three-volume work, A History of British India. In this he divided Indian history into three periods – Hindu, Muslim and British. This periodisation came to be widely accepted.

Source: Our Past III

Q.2) Why was Permanent Settlement introduced?

- 1. Artisanal production in Bengal was in decline, and agricultural cultivation showed signs of collapse.
- 2. It aims to encourage the British Governors to invest in improving the land.

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: Revenue for the Company

The Company had become the Diwan, but it still saw itself primarily as a trader. It wanted a large revenue income but was unwilling to set up any regular system of assessment and collection. The effort was to increase the revenue as much as it could and buy fine cotton and silk cloth as cheaply as possible. Within five years the value of goods bought by the Company in Bengal doubled. Before 1765, the Company had purchased goods in India by importing gold and silver from Britain. Now the revenue collected in Bengal could finance the purchase of goods for export.

Soon it was clear that the Bengal economy was facing a deep crisis. Artisans were deserting villages since they were being forced to sell their goods to the Company at low prices. Peasants were unable to pay the dues that were being demanded from them. Artisanal production was in decline, and agricultural cultivation showed signs of collapse. Then in 1770 a terrible famine killed ten million people in Bengal. About one-third of the population was wiped out.

The need to improve agriculture

The Company finally introduced the Permanent Settlement in 1793. By the terms of the settlement, the rajas and taluqdars were recognised as zamindars. They were asked to collect rent from the peasants and pay revenue to the Company. The amount to be paid was fixed permanently, that is, it was not to be increased ever in future. It was felt that this would ensure a regular flow of revenue into the Company's coffers and at the same time encourage the zamindars to invest in improving the land. Since the revenue demand of the

state would not be increased, the zamindar would benefit from increased production from the land.

Source: OUR PAST III

Q.3) Who among the following was the Governor-General of India when the Permanent Settlement was introduced?

- a) Robert Clive
- b) Warren Hastings
- c) Charles Cornwallis
- d) Thomas Munro

ANS: C

Explanation: Company finally introduced the Permanent Settlement in 1793. By the terms of the settlement, the rajas and taluqdars were recognised as zamindars. They were asked to collect rent from the peasants and pay revenue to the Company. The amount to be paid was fixed permanently, that is, it was not to be increased ever in future. It was felt that this would ensure a regular flow of revenue into the Company's coffers and at the same time encourage the zamindars to invest in improving the land. Since the revenue demand of the state would not be increased, the zamindar would benefit from increased production from the land.

Cornwallis was the Governor-General of India when the Permanent Settlement was introduced.

Source: Our Past III

Q.4) Consider the following statements:

1. Under British rule, tribal chiefs were allowed to keep their land titles over a cluster of villages and rent out lands.
2. Tribal chiefs had control over their administrative power.

Which of the above given statements about Tribal chiefs during British Rule is/are correct?

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

ANS: A

Explanation:

Before the arrival of the British, in many areas the tribal chiefs were important people. They enjoyed a certain amount of economic power and had the right to administer and control their territories. In some places they had their own police and decided on the local rules of land and forest management. Under British rule, the functions and powers of the tribal chiefs changed considerably. They were allowed to keep their land titles over a cluster of villages and rent out lands, but they lost much of their administrative power and were forced to follow laws made by British officials in India. They also had to pay tribute to the British, and discipline the tribal groups on behalf of the British. They lost the authority they had earlier enjoyed amongst their people, and were unable to fulfil their traditional functions.

Source: Our Past III

Q.5) Who among the following decided that Bahadur Shah Zafar would be the last Mughal king and after his death none of his descendants would be recognized as kings?

- a) Dalhousie
- b) Canning
- c) Bentick
- d) No such decision was taken

ANS: B

Explanation: The Company began to plan how to bring the Mughal dynasty to an end. The name of the Mughal king was removed from the coins minted by the Company. In 1849, Governor-General Dalhousie announced that after the death of Bahadur Shah Zafar, the family of the king would be shifted out of the Red Fort and given another place in Delhi to reside in. In 1856, Governor-General Canning decided that Bahadur Shah Zafar would be the last Mughal king and after his death none of his descendants would be recognized as kings – they would just be called princes.

Source: Our Past III

Q.6) Arrange the following in chronological order:

1. Widow Remarriage Act
2. Abolition of Sati
3. Publication of Stripurushtulna

Select the correct answer using the codes given below:

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

ANS: C

Explanation:

- Rammohun Roy was well versed in Sanskrit, Persian and several other Indian and European languages. He tried to show through his writings that the practice of widow burning had no sanction in ancient texts. They were therefore more than willing to listen to Rammohun who was reputed to be a learned man. In 1829, sati was banned.
- one of the most famous reformers, Ishwarchandra Vidyasagar, used the ancient texts to suggest that widows could remarry. His suggestion was adopted by British officials, and a law was passed in 1856 permitting widow remarriage. Those who were against the remarriage of widows opposed Vidyasagar, and even boycotted him.
- By the 1880s, Indian women began to enter universities. Some of them trained to be doctors, some became teachers. Many women began to write and publish their critical views on the place of women in society. Tarabai Shinde, a woman educated at home at Poona, published a book, Stripurushtulna, (A Comparison between Women and Men), criticising the social differences between men and women.

Source: Our Past III

Q.7) Who among the following founded Satnami movement?

- a) Swami Dayanand Saraswati
- b) Tarabai Shinde
- c) Haridas Thakur
- d) Ghasidas

ANS: D

Explanation:

By the second half of the nineteenth century, people from within the Non-Brahman castes began organising movements against caste discrimination, and demanded social equality and justice.

The Satnami movement in Central India was founded by Ghasidas who worked among the leatherworkers and organised a movement to improve their social status. In eastern Bengal, Haridas Thakur's Matua sect worked among Chandala cultivators. Haridas questioned Brahmanical texts that supported the caste system. In what is present-day Kerala, a guru from Ezhava caste, Shri Narayana Guru, proclaimed the ideals of unity for his people. He argued against treating people unequally on the basis of caste differences. According to him, all humankind belonged to the same caste. One of his famous statements was: "oru jati, oru matam, oru daivam manushyanu" (one caste, one religion, one god for humankind).

Source: Our Past III

Q.8) Who among the following authored the book titled, 'Gulamgiri'?

- a) Bhagat Singh
- b) Jyotirao Phule
- c) Kesab Chandra Sen
- d) Mahatma Gandhi

ANS: B

Explanation:

In 1873, Phule wrote a book named Gulamgiri, meaning slavery. Some ten years before this, the American Civil War had been fought, leading to the end of slavery in America. Phule dedicated his book to all those Americans who had fought to free slaves, thus establishing a link between the conditions of the "lower" castes in India and the black slaves in America.

Source: Our Past III

Q.9) Consider the following statements:

1. Young Bengal Movement was started by Raja Ram mohan Roy
2. Ramakrishna Mission stressed the ideal of salvation through social service and selfless action.

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: B

Explanation: Derozio and Young Bengal

Henry Louis Vivian Derozio, a teacher at Hindu College, Calcutta, in the 1820s, promoted radical ideas and encouraged his pupils to question all authority. Referred to as the Young

Bengal Movement, his students attacked tradition and custom, demanded education for women and campaigned for the freedom of thought and expression.

The Ramakrishna Mission and Swami Vivekananda

Named after Ramakrishna Paramhansa, Swami Vivekananda's guru, the Ramakrishna Mission stressed the ideal of salvation through social service and selfless action.

Source: Our Past III

Q.10) Consider the following statements about Swaraj Party:

1. It was formed after Gaya Session of Indian National Congress in 1922.
2. It worked as an independent Party.
3. The party decided to boycott the legislatures.

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

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

ANS: B

Explanation:

Swaraj Party was formed by Motilal Nehru and Chittaranjandas and was named as "Congress-Khilafat Swarajaya Party" in 1922. It also claimed to be an integral part of the Congress and professes its adherence to Non-Violence & Non-Cooperation Movement and decided to boycott the legislatures. One group led by C.R. Das, Motilal Nehru and Vithalbhai Patel wanted that the congress should take part in the elections and wreck the working of legislatures from within. The other group which was led by Vallabhbhai Patel, C. Rajagopalachari and Rajendra Prasad, was opposed to this. They wanted the congress to be engaged in the constructive programme.

Source: NCERT