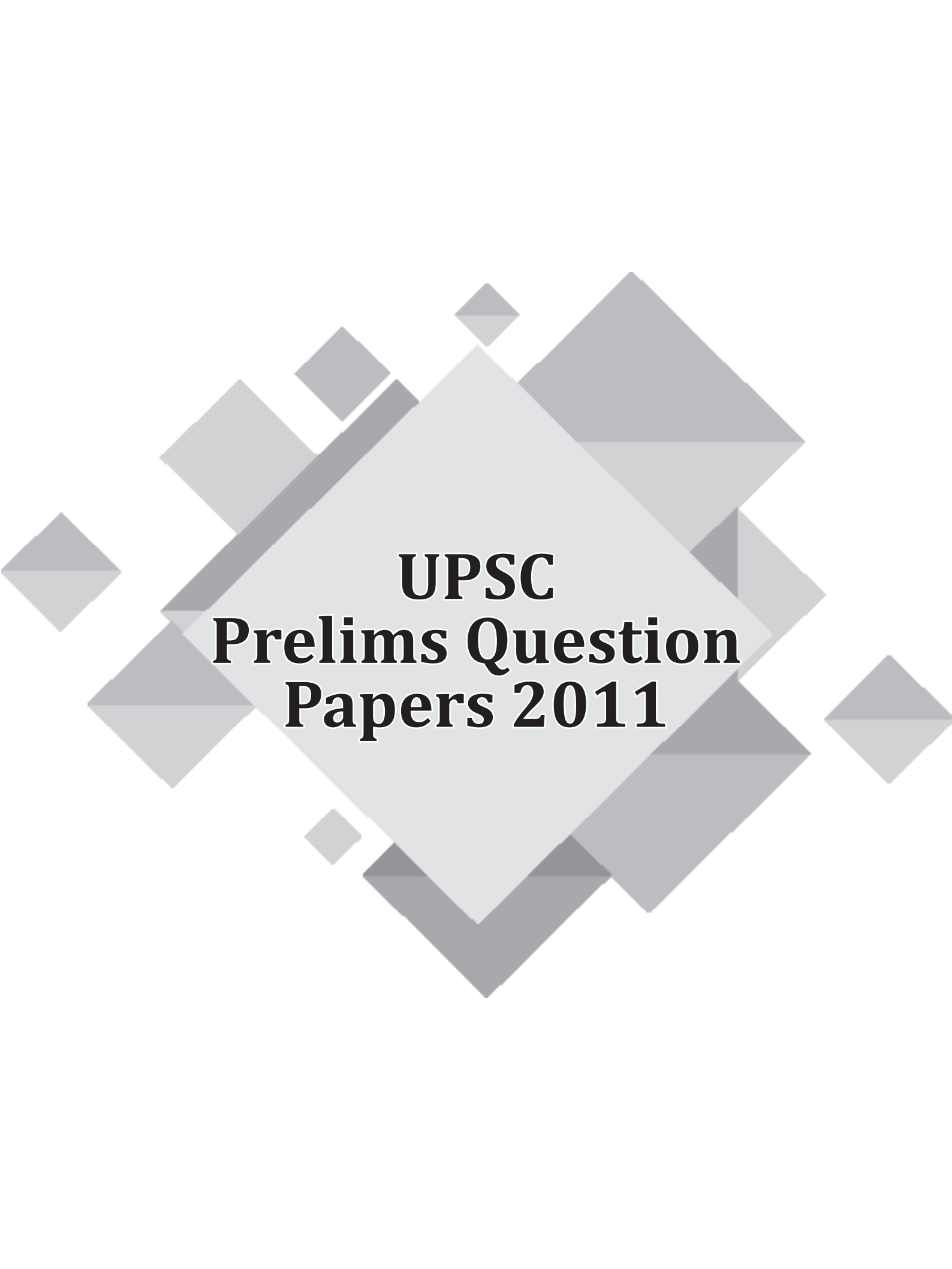


**UPSC, CSE  
(Prelims)**

**UPSC CSE (P)  
Question Papers  
(2011)**



**UPSC  
Prelims Question  
Papers 2011**

1

# General Studies Paper-I

1. **The 2004 Tsunami made people realize that mangroves can serve as a reliable safety hedge against coastal calamities. How do mangroves function as a safety hedge?**
  - (a) The mangrove swamps separate the human settlements from the sea by a wide zone in which people neither live nor venture out.
  - (b) The mangroves provide both food and medicines which people are in need of after any natural disaster.
  - (c) The mangrove trees are tall with dense canopies and serve as an excellent shelter during a cyclone or tsunami
  - (d) The mangrove trees do not get uprooted by storms and tides because of their extensive roots.
2. **The Jain philosophy holds that the world is created and maintained by**
  - (a) Universal Law (b) Universal Truth (c) Universal Faith (d) Universal Soul
3. **Occurs when the irrigation water accumulated in the soil evaporates, leaving behind salts and minerals. What are the effects of salinization on the irrigated land?**
  - (a) It greatly increases the crop production (b) It makes some soils impermeable
  - (c) It raises the water table (d) It fills the air spaces in the soil with water
4. **The “Red Data Books” published by the International Union for Conservation of Nature and Nature Resources (IUCN) contain lists of**
  - (1) Endemic plant and animal species present in the biodiversity hotspots.
  - (2) Threatened plant and animal species.
  - (3) Protected sites for conservation of nature and natural resources in various countries.

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

  - (a) 1 and 3 only (b) 2 only (c) 2 and 3 only (d) 1, 2 and 3
5. **Why is the offering of “teaser loans” by commercial banks a cause of economic concern?**
  - (1) The teaser loans are considered to be an aspect of sub-prime lending and banks may be exposed to the risk of defaulters in future.
  - (2) In India, the teaser loans are mostly given to inexperienced entrepreneurs to set up manufacturing or export units.

**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

6. **An artificial satellite orbiting around the Earth does not fall down. This is so because the attraction of Earth.**
- (a) Does not exist at such distance
  - (b)
  - (c) Provides the necessary speed for its steady motion
  - (d) Provides the necessary acceleration for its motion
7. **In the context of Indian economy, consider the following statements:**
- (1) The growth rate of GDP has steadily increased in the last five years.
  - (2) The growth rate in per capita income has steadily increased in the last five years.
- Which of the statements given above is/are correct?**
- (a) 1 and 2 only      (b) 2 only      (c) Both 1 and 2      (d) Neither 1 nor 2
8. **In India, which of the following have the highest share in the disbursement of credit to agriculture and allied activities?**
- (a) Commercial Banks      (b) Cooperative Banks
  - (c) Regional Rural Banks      (d) Microfinance Institutions
9. **Which of the following, can aid in furthering the Government's objective of inclusive growth?**
- (1) Promoting Self-Help Groups
  - (2) Promoting Micro Small and Medium Enterprises.
  - (3) Implementing the Right to Education Act
- Select the correct answer using the coeds given below:**
- (a) 1 only      (b) 2      (c) 2 and 3 only      (d) 1, 2 and 3
10. **Why is the Government of India disinvesting its equity in the Central Public Sector Enterprises (CPSEs)?**
- (1) The Government intends to use the revenue earned from the disinvestment mainly to pay back the external debt.
  - (2) The Government no longer intends to retain the management control of the CPSEs.
- 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
11. **What is the difference between asteroids and comets?**
- (1) Asteroids are small rocky planetoids, while comets are formed of frozen gases held together by rocky and metallic material.
  - (2) Asteroids are found mostly between the orbits of Jupiter and Mars, while comets are found mostly between Venus and Mercury.
  - (3) Comets show a perceptible glowing tail while asteroids do not.
- Which of the statements given above is/are correct?**
- (a) 1 and 2 only      (b) 1 and 3 only      (c) 3 only      (d) 1, 2 and 3

12. **Economic growth is usually coupled with**  
(a) Deflation (b) Inflation (c) Stagflation (d) Hyperinflation
13. **The lowering of Bank Rate by the Reserve Bank of India leads to**  
(a) More liquidity in the market  
(b) Less liquidity in the market  
(c) No change in the liquidity in the market  
(d) Mobilization of more deposits by commercial banks
14. **Westerlies in southern hemisphere are stronger and persistent than in northern hemisphere. Why?**  
(1) Southern hemisphere has less landmass as compared to northern hemisphere.  
(2) Coriolis force is higher in southern hemisphere as compared to northern hemisphere

**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
15. **Between India and East Asia, the navigation-time and distance can be greatly reduced by which of the following?**  
(1) Deepening the Malacca straits between Malaysia and Indonesia.  
(2) Opening a new canal across the Kra isthmus between the Gulf of Siam and Andaman Sea.

**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
16. **Consider the following**  
(1) Right to education  
(2) Right to equal access of public service.  
(3) Right to food

**Which of the above is/are Human Right/Human Rights under “Universal Declaration of Human Rights”?**

- (a) 1 only (b) 1 and 2 only (c) 3 only (d) 1, 2 and 3
17. **There is a concern over the increase in harmful algal blooms in the seawaters of India. What could be the causative factors for this phenomenon?**  
(1) Discharge of nutrients from the estuaries.  
(2) Run-off from the land during the monsoon.  
(3) Upwelling in the seas.

**Answer Options**

- (a) 1 only (b) 1 and 2 only (c) 2 and 3 only (d) 1, 2 and 3
18. **Consider the following:**  
(1) Photosynthesis (2) Respiration  
(3) Decay of organic matter (4) Volcanic action

**Which of the above add carbon dioxide to the carbon cycle on Earth?**

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

**19. Recently, the USA decided to support India's membership in multi-lateral export control regimes called the "Australia Group" and the "Wassenaar Arrangement". What is the difference between them?**

- (1) The Australia Group is an informal arrangement which aims to allow exporting countries to minimize the risk of assisting chemical and biological weapons proliferation, whereas the Wassenaar Arrangement is a formal group under the OECD holding identical objectives.
- (2) The Australia Group comprises predominantly of Asian, African and North American countries, whereas the member countries, whereas the member countries of Wassenaar Arrangement are predominantly from the European Union and American continents.

**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

**20. The surface of a lake is frozen in severe winter, but the water at its bottom is still liquid. What is the reason?**

- (a) Ice is a bad conductor of heat.
- (b) Since the surface of the lake is at the same temperature as the air, no heat is lost
- (c) The density of water is maximum at 40C
- (d) None of the statements (a), (b) and (c) given above is correct.

**21. A sandy and saline area is the natural habitat of an Indian animal species. The animal has no predators in that area but its existence is threatened due to the destruction of its habitat. Which one of the following could be that animal?**

- (a) Indian wild buffalo    (b) Indian wild ass
- (c) Indian Wild boar    (d) Indian gazelle

**22. La Nina is suspected to have caused recent floods in Australia. How is La Nina different from El Nino?**

- (1) La Nina is characterised by unusually cold ocean temperature in equatorial Indian Ocean whereas El Nino is characterised by unusually warm ocean temperature in the equatorial Pacific Ocean.
- (2) El Nino has adverse effect on south-west monsoon of India, but La Nina has no effect on monsoon climate.

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

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

**23. The tendency for increased litigation was visible after the introduction of land settlement system of Lord Cornwallis in 1793. The reason for this is normally traced to which of the following provisions?**

- (a) Making Zamindar's position stronger vis-a-vis the ryot

- (b) Making East India Company an overlord of Zamindars
- (c) Making judicial system more efficient
- (d) None of the (a), (b) and (c) above

**24. Which one of the following observations is not true about the Quit India Movement of 1942?**

- (a) It was a non-violent movement
- (b) It was led by Mahatma Gandhi
- (c) It was a spontaneous movement
- (d) It did not attract the labour class in general

**25. Which amongst the following provided a common factor for tribal insurrection in India in the 19th century?**

- (a) Introduction of a new system of land revenue and taxation of tribal products.
- (b) Influence of foreign religious missionaries in tribal areas.
- (c) Rise of a large number of money lenders, traders and revenue farmers as middlemen in tribal areas.
- (d) The complete disruption of the old agrarian order of the tribal communities.

**26. India maintained its early cultural contacts and trade links with Southeast Asia across the Bay of Bengal. For this pre-eminence of early maritime history of Bay of Bengal, which of the following could be the most convincing explanation/ explanations?**

- (a) As compared to other countries, India had a better ship-building technology in ancient and medieval times.
- (b) The rulers of southern India always patronized traders, brahmini priests and buddhist monks in this context.
- (c) Monsoon winds across the Bay of Bengal facilitated sea voyages.
- (d) Both (a) and (b) are convincing explanations in this context.

**27. What is the difference between Bluetooth and Wi-Fi devices?**

- (a) Bluetooth uses 2.4 GHz radio frequency band, whereas Wi-Fi can use 2.4 GHz or 5 GHz frequency band.
- (b) Bluetooth is used for Wireless Local Area Networks (WLAN) only, whereas Wi-Fi is used for Wireless Wide Area Networks (WWAN) only.
- (c) When information is transmitted between two devices using Bluetooth technology, the devices have to be in the line of sight of each other, but when Wi-Fi technology is used the devices need not be in the line of sight of each other.
- (d) The statements (a) and (b) given above are correct in this context.

**28. With reference to micro-irrigation, which of the following statements is/are correct?**

- (1) Fertilizer/nutrient loss can be reduced.
- (2) It is the only means of irrigation in dry land farming.
- (3) In some areas of farming, receding of ground water table can be checked.

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

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

29. **With reference to the period of colonial rule in India, “Home Charges” formed an important part of drain of wealth from India. Which of the following funds constituted “Home Charges”?**
- (1) Funds used to support the India office in London.
  - (2) Funds used to pay salaries and pensions of British personnel engaged in India.
  - (3) Funds used for waging wars outside India by the British.
- Select the correct answer using the codes given below**
- (a) 1 only                      (b) 1 and 2 only                      (c) 2 and 3 only                      (d) 1, 2 and 3
30. **What was the reason for Mahatma Gandhi to organize a satyagraha on behalf of the peasants of Kheda?**
- (1) The Administration did not suspend the land revenue collection in spite of a drought.
  - (2) The Administration proposed to introduce Permanent Settlement in Gujarat.
- 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
31. **Regular intake of fresh fruits and vegetables is recommended in the diet since they are a good source of antioxidants. How do antioxidants help a person maintain health and promote longevity?**
- (a) They activate the enzymes necessary for vitamin synthesis in the body and help prevent vitamin deficiency
  - (b) They prevent excessive oxidation of carbohydrates, fats and proteins in the body and help avoid unnecessary wastage of energy
  - (c) They neutralize the free radicals produced in the body during metabolism.
  - (d) They activate certain genes in the cells of the body and help delay the ageing process.
32. **Regarding the Indus Valley Civilization, consider the following statements:**
- (1) It was predominantly a secular civilization and the religious element, though present, did not dominate the scene.
  - (2) During this period, cotton was used for manufacturing textiles in 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
33. **The lower Gangetic plain is characterised by humid climate with high temperature throughout the year. Which one among the following pairs of crops is most suitable for this region?**
- (a) Paddy and cotton
  - (b) Wheat and Jute
  - (c) Paddy and Jute
  - (d) Wheat and cotton
34. **What could be the main reason/reasons for the formation of African and Eurasian desert belt?**
- (1) It is located in the sub-tropical high pressure cells.
  - (2) It is under the influence of warm ocean currents



**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.

**35. The jet aircrafts fly very easily and smoothly in the lower stratosphere. What could be the appropriate explanation?**

- (1) There are no clouds or water vapour in the lower stratosphere.  
(2) There are no vertical winds in the lower stratosphere.

**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.

**36. Consider the following statements:**

- (1) Biodiversity is normally greater in the lower latitudes as compared to the higher latitudes.  
(2) Along the mountain gradients, biodiversity is normally greater in the lower altitudes as compared to the higher altitudes.

**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.

**37. The Brahmaputra, Irrawady and Mekong rivers originate in Tibet and flow through narrow and parallel mountain ranges in their upper reaches. Of these rivers, Brahmaputra makes a “U” turn in its course to flow into India. This “U” turn is due to**

- (a) Uplift of folded Himalayan series  
(b) Synaxial bending of geologically young Himalayas  
(c) Geo-tectonic disturbance in the tertiary folded mountain chains  
(d) Both (a) and (b) above

**38. A state in India has the following characteristics:**

- (1) Its northern part is arid and semiarid.  
(2) Its central part produces cotton.  
(3) Cultivation of cash crops is predominant over food crops.

**Which one of the following states has all of the above characteristics?**

- (a) Andhra Pradesh                      (b) Gujarat                      (c) Karnataka                      (d) Tamil Nadu

**39. What is “Virtual Private Network”?**

- (a) It is a private computer network of an organization where the remote users can transmit encrypted information through the server of the organization.  
(b) It is a computer network across a public internet that provides users access to their organization’s network while maintaining the security of the information transmitted.  
(c) It is a computer network in which users can access a shared pool of computing resources through a service provider.  
(d) None of the statements (a), (b) and (c) given above is a correct description of Virtual Private Network.

40. The “dharma” and “rita” depict a central idea of ancient Vedic civilization of India. In this context, consider the following statements:

- (1) Dharma was a conception of obligations and of the discharge of one’s duties to oneself and to others.
- (2) Rita was the fundamental moral law governing the functioning of the universe and all it contained.

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.

41. In the Union Budget 2011-12, a full exemption from the basic customs duty was extended to the bio-based asphalt (bioasphalt). What is the importance of this material?

- (1) Unlike traditional asphalt, bioasphalt is not based on fossil fuels.
- (2) Bioasphalt can be made from non-renewable resources.
- (3) Bioasphalt can be made from organic waste materials.
- (4) It is eco-friendly to use bioasphalt for surfacing of the roads.

Which of the statements given above is/are correct?

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

42. Consider the following

- (1) Carbon dioxide
- (2) Oxides of Nitrogen
- (3) Oxides of Sulphur

Which of the above is/are the emission/emissions from coal combustion at thermal power plants?

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

43. Satellites used for telecommunication relay are kept in a geostationary orbit. A satellite is said to be in such an orbit when:

- (1) The orbit is geosynchronous.
- (2) The orbit is circular,
- (3) The orbit lies in the plane of the Earth’s equator.
- (4) The orbit is at an altitude of 22,236 km.

Select the correct answer using the codes given below:

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

44. India has experienced persistent and high food inflation in the recent past. What could be the reasons?

- (1) Due to a gradual switchover to the cultivation of commercial crops, the area under the cultivation of food grains has steadily decreased in the last five years ‘by about 30%,
- (2) As a consequence of increasing incomes, the consumption patterns of the people have undergone a significant change.
- (3) The food supply chain has structural constraints.

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

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

**45. At present, scientists can determine the arrangement or relative positions of genes or DNA sequences on a chromosome. How does this knowledge benefit us?**

- (1) It is possible to know the pedigree of livestock.  
(2) It is possible to understand the causes of all human diseases.  
(3) It is possible to develop disease resistant animal breeds.

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

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

**46. In terms of economy, the visit by foreign nationals to witness the XIX Common Wealth Games in India amounted to**

- (a) Export    (b) Import    (c) Production    (d) Consumption

**47. Microbial fuel cells are considered a source of sustainable energy. Why?**

- (1) They use living organisms as catalysts to generate electricity from certain substrates.  
(2) They use a variety of inorganic materials as substrates.  
(3) They can be installed in waste water treatment plants to cleanse water and produce electricity.

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

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

**48. Which one of the following statements appropriately describes the “fiscal stimulus”**

- (a) It is a massive investment by the Government in manufacturing sector to ensure the supply of goods to meet the demand surge caused by rapid economic growth.  
(b) It is an intense affirmative action of the Government to boost economic activity in the country.  
(c) It is Government’s intensive action on financial institutions to ensure disbursement of loans to agriculture and allied sectors to promote greater food production and contain food inflation  
(d) It is an extreme affirmative action by the Government to pursue its policy of financial inclusion.

**49. The formation of ozone hole in the Antarctic region has been a cause of concern. What could be the reason for the formation of this hole?**

- (a) Presence of prominent troposphere turbulence; and inflow of chlorofluorocarbons.  
(b) Presence of prominent polar front and stratospheric clouds; and inflow of chlorofluorocarbons.  
(c) Absence of polar front and stratospheric clouds; and inflow of methane and chlorofluorocarbons.  
(d) Increased temperature at polar region due to global warming.

50. Consider the following actions which the Government can take:
- (1) Devaluing the domestic currency.
  - (2) Reduction in the export subsidy.
  - (3) Adopting suitable policies which attract greater FDI and more funds from FIIs.
- Which of the above action/actions can help in reducing the current account deficit?
- (a) 1 and 2            (b) 2 and 3            (c) 3 only            (d) 1 and 3.
51. The Constitution (Seventy-Third Amendment) Act, 1992, which aims at promoting the Panchayati Raj Institutions in the country provides for which of the following?
- (1) Constitution of District Planning Committees.
  - (2) State Election Commissions to conduct all panchayat elections:
  - (3) Establishment of State Finance Commissions.
- Select the correct answer using the codes given below
- (a) 1 only            (b) 1 and 2 only            (c) 2 and 3 only            (d) 1, 2 and 3.
52. Two important rivers — one with its source in Jharkhand ( and known by a different name in Odisha), and another, with its source in Odisha— merge at a place only a short distance from the coast of Bay of Bengal before flowing into the sea. This is an important site of wildlife and biodiversity and a protected area. Which one of the following could be this?
- (a) Bhitarkanika            (b) Chandipur-on-sea  
(c) Gopalpur-on-sea            (d) Simlipal
53. A rapid increase in the rate of inflation is sometimes attributed to the “base effect”. What is “base effect”?
- (a) It is the impact of drastic deficiency in supply due to failure of crops.
  - (b) It is the impact of the surge in demand due to rapid economic growth.
  - (c) It is the impact of the price levels of previous year on the calculation of inflation rate.
  - (d) None of the statements (a), (b) and (c) given above is correct in this context.
54. India is regarded as a country with “Demographic Dividend”. This is due to
- (a) Its high population in the age group below 15 years.
  - (b) Its high population in the age group of 15-64 years.
  - (c) Its high population in the age group above 65 years.
  - (d) Its high total population.
55. Regarding “carbon credits”, which one of the following statements is not correct?
- (a) The carbon credit system was ratified in conjunction with the Kyoto Protocol.
  - (b) Carbon credits are awarded to countries or groups that have reduced greenhouse gases below their emission quota
  - (c) The goal of the carbon credit system is to limit the increase of carbon dioxide emission.
  - (d) Carbon credits are traded at a price fixed from time to time by the United Nations Environment Programme.

56. **In the context of global oil prices, “Brent crude oil” is frequently referred to in the news. What does this term imply?**
- (1) It is a major classification of crude oil.
  - (2) It is sourced from North Sea.
  - (3) It does not contain sulphur.
- Which of the statements given above is/are correct?**
- (a) 2 only                      (b) 1 and 2 only                      (c) 1 and 3 only                      (d) 1, 2 and 3.
57. **The function of heavy water in a nuclear reactor is to**
- (a) Slow down the speed of neutrons
  - (b) Increase the speed of neutrons
  - (c) Cool down the reactor
  - (d) Stop the nuclear reaction
58. **In Indian, if a religious sect/community is given the status of a national minority, what special advantages it is entitled to?**
- (1) It can establish and administer exclusive educational institutions.
  - (2) The President of India automatically nominates a representative of the community to Lok Sabha.
  - (3) It can derive benefits from the Prime Minister’s 15-point Programme.
- Which of the statements given above is/are correct?**
- (a) 1 only                      (b) 2 and 3 only                      (c) 1 and 3 only                      (d) 1, 2 and 3.
59. **India is home to lakhs of persons with disabilities. What are the benefits available to them under the law?**
- (1) Free schooling till the age of 18 years in government-run schools.
  - (2) Preferential allotment of land for setting up business.
  - (3) Ramps in public buildings.
- Which of the statements given above is/are correct ?**
- (a) 1 only                      (b) 2 and 3 only                      (c) 1 and 3 only                      (d) 1, 2 and 3
60. **With what purpose is the Government, of India promoting the concept of “Mega Food Parks”?**
- (1) To provide good infrastructure facilities for the food processing industry.
  - (2) To increase the processing of perishable items and reduced wastage.
  - (3) To provide emerging and eco-friendly food processing technologies to entrepreneurs.
- Select the correct answer using the codes given below:**
- (a) 1 only                      (b) 1 and 2 only                      (c) 2 and 3 only                      (d) 1, 2 and 3
61. **The authorization for the withdrawal of funds from the Consolidated Fund of India must come from**
- (a) The President of India
  - (b) The Parliament of India
  - (c) The Prime Minister of India
  - (d) The Union Finance Minister

62. All revenues received by the Union Government by way of taxes and other receipts for the conduct of Government business are credited to the
- (a) Contingency Fund of India (b) Public Account  
(c) Consolidated Fund of India (d) Deposits and Advances Fund
63. Microfinance is the provision of financial services to people of low-income groups. This includes both the consumers and the self-employed. The service/services rendered under microfinance is/are:
- (1) Credit facilities (2) Savings facilities  
(3) Insurance facilities (4) Fund Transfer facilities
- Select the correct answer using the codes given below the lists:
- (a) 1 only (b) 1 and 4 only (c) 2 and 3 only (d) 1, 2, 3 and 4
64. Southeast Asia has captivated the attention of global community over space and time as a geostrategically significant region. Which among the following is the most convincing explanation for this global perspective?
- (a) It was the hot theatre during the Second World War.  
(b) Its location between the Asian powers of China and India.  
(c) It was the arena of superpower confrontation during the Cold War period.  
(d) Its location between the Pacific and Indian oceans and its pre-eminent maritime character.
65. A company marketing food products advertises that its items do not contain trans-fats. What does this campaign signify to the customers?
- (1) The food products are not made out of hydrogenated oils.  
(2) The food products are not made out of animal fats/oils.  
(3) The oils used are not likely to damage the cardiovascular health of the consumers.
- Which of the statements given about is/are correct?
- (a) 1 only (b) 2 and 3 only (c) 1 and 3 only (d) 1, 2 and 3
66. Among the following who are eligible to benefit from the “Mahatma Gandhi National Rural Employment Guarantee Act”?
- (a) Adult members of only the scheduled caste and scheduled tribe households.  
(b) Adult members of below poverty line (BPL) households.  
(c) Adult members of households of all backward communities.  
(d) Adult members of any household.
67. With reference to “Look East Policy” of India, consider the following statements:
- (1) India wants to establish itself as an important regional player in the East Asian affairs.  
(2) India wants to plug the vacuum created by the termination of Cold War.  
(3) India wants to restore the historical and cultural ties with its neighbours in Southeast and East Asia.

Which of the statements given above is/are correct?

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

**68. When the annual Union Budget is not passed by the Lok Sabha.**

- (a) The Budget is modified and presented again  
(b) The Budget is referred to the Rajya Sabha for suggestions.  
(c) The Union Finance Minister is asked to resign  
(d) The prime Minister submits the resignation of Council of Ministers.

**69. Under the Constitution of India, which one of the following is not a fundamental duty?**

- (a) To vote in public elections  
(b) To develop the scientific temper  
(c) To safeguard public property  
(d) To abide by the Constitution and respect its ideals.

**70. With reference to the Finance Commission of India, which of the following statements is correct?**

- (a) It encourages the inflow of foreign capital for infrastructure development.  
(b) It facilitates the proper distribution of finances among the Public Sector Undertakings.  
(c) It ensures transparency in financial administration.  
(d) None of the statements (a), (b) and (c) given above is correct in this context.

**71. Biodiversity forms the basis for human existence in the following ways:**

- (1) Soil formation  
(2) Prevention of soil erosion  
(3) Recycling of waste  
(4) Pollination of crops

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

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

**72. Aspartame is an artificial sweetener sold in the market. It consists of amino acids and provides calories like other-calorie sweetening agent in food items. What is the basis of this use?**

- (a) Aspartame is as sweet as table sugar, but unlike table sugar, it is not readily oxidized in human body due to lack of requisite enzymes.  
(b) When aspartame is used in food processing, the sweet taste remains, but it becomes resistant to oxidation.  
(c) Aspartame is as sweet as sugar, but after ingestion into the body, it is converted into metabolites that yield no calories.  
(d) Aspartame is several times sweeter than table sugar; hence food items made with small quantities of aspartame yield fewer calories on oxidation.

**73. What was the purpose with which Sir William Wedderburn and W.S. Caine had set up the Indian Parliamentary Committee in 1893?**

- (a) To agitate for Indian political reforms in the House of Commons.

- (b) To campaign for the entry of Indians into the Imperial Judiciary.
- (c) To facilitate a discussion on India's Independence in the British Parliament.
- (d) To agitate for the entry of eminent Indians into the British Parliament.

**74. What is the difference between a CFL and an LED lamp?**

- (1) To produce light, a CFL uses mercury vapour and phosphor while an LED lamp uses semi-conductor material.
- (2) The average life span of a CFL is much longer than that of an LED lamp.
- (3) A CFL is less energy-efficient as compared to an LED Lamp.

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

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

**75. Recently "oilzapper" was in the news. What is it?**

- (a) It is an eco-friendly technology for the remediation of oily sludge and oil spills.
- (b) It is the latest technology developed for under-sea oil exploration.
- (c) It is a genetically engineered high biofuel-yielding maize variety.
- (d) It is the latest technology to control the accidentally caused flames from oil wells.

**76. A married couple adopted a male child. A few years later twin boys were born to them. The blood group of the couple is AB positive and O negative. The blood group of the three sons is A positive, B positive, and O positive. The blood group of the adopted son is**

- (a) O positive
- (b) A positive
- (c) B positive
- (d) Cannot be determined on the basis of the given data

**77. Mahatma Gandhi said that some of his deepest convictions were reflected in a book titled, "Unto this Last" and the book transformed his life. What was the message from the book that transformed Mahatma Gandhi?**

- (a) Uplifting the oppressed and poor is the moral responsibility of an educated man
- (b) The good of individual is contained in the good of all
- (c) The life of celibacy and spiritual pursuit are essential for a noble life
- (d) All the statements (a), (b) and (c) are correct in this context.

**78. With reference to Indian freedom struggle, Usha Mehta is well-known for**

- (a) Running the secret Congress Radio in the wake of Quit India Movement.
- (b) Participating in the Second Round Table Conference
- (c) Leading a contingent of Indian National Army.
- (d) Assisting in the formation of Interim Government under Pandit Jawaharlal Nehru.

**79. A new optical disc format known as the Blu-ray Disc (BD) is becoming popular. In what way is it different from the traditional DVD?**

- (1) DVD supports Standard Definition video while BD supports High Definition video.
- (2) Compared to a DVD, the BD format has several times more storage capacity.





86. **Which one of the following is not a feature of “Value Added Tax”?**
- (a) It is a multi-point destination-based system of taxation.
  - (b) It is a tax levied on value addition at each stage of transaction in the production-distribution chain
  - (c) It is a tax on the final consumption of goods or services and must ultimately be borne by the consumer
  - (d) It is basically a subject of the Central Government and the State Governments are only a facilitator for its successful implementation.
87. **A “closed economy” is an economy in which**
- (a) the money supply is full controlled
  - (b) deficit financing takes place
  - (c) only exports take place
  - (d) neither exports nor imports take place
88. **When the bark of a tree is removed in a circular fashion all around near its base, it gradually dries up and dies because**
- (a) Water from soil cannot rise to aerial parts
  - (b) Roots are starved of energy
  - (c) Tree is infected by soil microbes
  - (d) Roots do not receive oxygen for respiration.
89. **The “New START” treaty was in the news. What is this treaty?**
- (a) It is a bilateral strategic nuclear arms reduction treaty between the USA and the Russian Federation.
  - (b) It is multilateral energy security cooperation. treaty among the members of the East Asia Summit
  - (c) It is a treaty between the Russian Federation and the European Union for the energy security cooperation.
  - (d) It is a multilateral cooperation treaty among the BRICS countries for the promotion of trade.
90. **Three of the following criteria have contributed to the recognition of Western Ghatsir Lanka and Indo-Burma regions as hotspots of biodiversity:**
- (1) Species richness
  - (2) Vegetation density
  - (3) Endemism
  - (4) Ethno-botanical importance
  - (5) Threat perception
  - (6) Adaptation of flora and fauna to warm and humid conditions
- Which three of the above are correct Criteria in this context?**
- (a) 1, 2 and 6      (b) 2, 4 and 6      (c) 1, 3 and 5      (d) 3, 4, and 6

91. **Human activities in the recent past have caused the increased concentration of carbon dioxide in the atmosphere, but a lot of it does not remain in the lower atmosphere because of**

- (1) its escape into the outer stratosphere
- (2) the photosynthesis by phyto-plankton in the oceans.
- (3) the trapping of air in the polar ice caps.

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

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

92. **In the context of ecosystem productivity, marine upwelling zones are important as they increase the marine productivity by bringing the**

- (1) decomposer microorganisms to the surface.
- (2) nutrients to the surface.
- (3) bottom-dwelling organisms to the surface.

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

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

93. **If a tropical rain forest is removed, it does not regenerate quickly as compared to a tropical deciduous forest. This is because**

- (a) the soil of rain forest is deficient in nutrients.
- (b) propagules of the trees in a rain forest have poor viability
- (c) the rain forest species are slow growing
- (d) exotic species invade the fertile soil of rain forest.

94. **The Himalayan Range is very rich in species diversity. Which one among the following is the most appropriate reason for this phenomenon?**

- (a) It has a high rainfall that supports luxuriant vegetative growth
- (b) It is a confluence of different biogeographical zones.
- (c) Exotic and invasive species have not been introduced in this region.
- (d) It has less human interference

95. **With reference to India, consider the following Central Acts:**

- (1) Import and Export (Control) Act, 1947
- (2) Mining and Mineral Development (Regulation) Act, 1957
- (3) Customs Act, 1962
- (4) Indian Forest Act, 1927

**Which of the above Acts have relevance to/bearing on the biodiversity conservation in the country?**

- (a) 1 and 3                                              (b) 2, 3 and 4 only  
(c) 1, 2, 3 and 4                                      (d) None of the above Acts

96. **Karl Marx explained the process of class struggle with the help of which one of the following theories?**

- (a) Empirical liberalism (b) Existentialism  
(c) Darwin's theory of evolution (d) Dialectical materialism

97. **A layer in the Earth's atmosphere called Ionosphere facilitates radio communication. Why?**

- (1) The presence of ozone causes the reflection of radio waves to Earth.  
(2) Radio waves have a very long wavelength.

**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

98. **Both Foreign Direct Investment (FDI) and Foreign Institutional Investor (FII) are related to investment in a country. Which one of the following statements best represents an important difference between the two?**

- (a) FII helps bring better management skills and technology, while FDI only brings in capital.  
(b) FII helps in increasing capital availability in general, while FDI only targets specific sectors.  
(c) FDI flows only into the secondary market, while FII targets primary market.  
(d) FII is considered to be more stable than FDI.

99. **A genetically, engineered form of brinjal, known as the Bt-brinjal, has been developed. The objective of this is**

- (a) To make it pest-resistant  
(b) To improve its taste and nutritive qualities  
(c) To make it drought-resistant  
(d) To make its shelf-life longer

100. **With reference to "Aam Admi Bima Yojana", consider the following statements:**

- (1) The member insured under the scheme must be the head of the family or an earning member of the family in a rural landless household.  
(2) The member insured must be in the age group of 30 to 65 years.  
(3) There is a provision for free scholarship for up to two children of the insured who are studying between classes 9 and 12.

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

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

2

## CSAT Paper-II

**Directions for the following 5 (five) items :**

**Read the following passage and answer the items that follow. Your answers to these items should be based on the passage only.**

**PASSAGE**

Now India's children have a right to receive at least eight years of education, the gnawing question is whether it will remain on paper or become a reality. One hardly needs a reminder that this right is different from the others enshrined in the Constitution, that the beneficiary a six year old child cannot demand it, nor can she or he fight a legal battle when the right is denied or violated. In all cases, it is the adult society which must act on behalf of the child. In another peculiarity, where a child's right to education is denied, no compensation offered later can be adequate or relevant. This is so because childhood does not last. If a legal battle fought on behalf of a child is eventually won, it may be of little use to the boy or girl because the opportunity missed at school during childhood cannot serve the same purpose later in life. This may be painfully true for girls because our society permits them only a short childhood, if at all. The Right to Education (RTE) has become law at a point in India's history when the ghastly practice of female infanticide has resurfaced in the form of foeticide. This is "symptomatic of a deeper turmoil" in society which is compounding the traditional obstacles to the education of girls. Tenacious prejudice against the intellectual potential of girls runs across our cultural diversity and the system of education has not been able to address it.

**1. With reference to the passage, consider the following statements :**

(1) When children are denied education, adult society does not act on behalf of them.

(2) Right to Education as a law cannot be enforced in the country.

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

**2. According to the passage, what could be the traditional obstacles to the education of girls ?**

(1) Inability of parents to fight a legal battle when the Right to Education is denied to their children.

(2) The traditional way of thinking about girl's role in society.

(3) The prejudice against the intellectual potential of girls.

(4) Improper system of education.

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

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

3. On the basis of the passage, consider the following statements :
- (1) Right to Education is a legal right and not a fundamental right.
  - (2) For realising the goal of universal education, the education system in the country must be made identical to that of developed countries.
- 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
4. Which one of the following statements conveys the key message of the passage ?
- (a) India has declared that education is compulsory for its children.
  - (b) adult society is not keen on implementing the Right to Education.
  - (c) The Right to Education, particularly of a girl child, needs to be safeguarded.
  - (d) The system of education should address the issue of Right to Education.
5. Which one of the following statements conveys the inference of the passage ?
- (a) The society has a tenacious prejudice against the intellectual potential of girls.
  - (b) Adults cannot be relied upon to fight on behalf of children for their Right to Education.
  - (c) The legal fight to get education for children is often protracted and prohibitive.
  - (d) There is no sufficient substitute for education received in childhood.

Read the following passage and answer the 3 (three) items that follow :

A, B, C, D and E are members of the same family. There are two fathers, two sons, two wives, three males and two females, The teacher was the wife of a lawyer who was the son of a doctor. E is not a male, neither also a wife of a professional. C is the youngest person in the family and D is the eldest. B is a male.

6. How is D related to E ?
- (a) Husband                      (b) Son                      (c) Father                      (d) Wife
7. Who are the females in the group ?
- (a) C and E                      (b) C and D                      (c) E and A                      (d) D and E
8. Whose wife is the teacher ?
- (a) C                      (b) D                      (c) A                      (d) B

Read the following passage and answer the 3 (three) items that follow :

In a survey regarding a proposed measure to be introduced, 2878 persons took part of which 1652 were males. 1226 persons voted against the proposal of which 796 were males. 1425 persons voted for the proposal. 196 females were undecided.

9. How many females voted for the proposal ?
- (a) 430                      (b) 600                      (c) 624                      (d) 640
10. How many males were undecided ?
- (a) 31                      (b) 227                      (c) 426                      (d) 581
11. How many females were not in favour of the proposal ?
- (a) 430                      (b) 496                      (c) 586                      (d) 1226

12. In a queue, Mr. X is fourteenth from the front and Mr. Y is seventeenth from the end, while Mr. Z is exactly in between Mr. X and Mr. Y. If Mr. X is ahead of Mr. Y and there are 48 persons in the queue, how many persons are there between Mr. X and Mr. Z ?
- (a) 6                      (b) 7                      (c) 8                      (d) 9

**Directions for the following 8 (eight) items :**

**Read each of the following two passages and answer the items that follow. Your answers to these items should be based on the passages only.**

### PASSAGE-1

For achieving inclusive growth there is a critical need to rethink the role of the State. The early debate among economists about the size of the Government can be misleading. The need of the hour is to have an enabling Government. India is too large and complex a nation for the State to be able to deliver all that is needed. Asking the Government to produce all the essential goods, create all the necessary jobs, and keep a curb on the princes of all goods is to lead to a large cumbersome bureaucracy and widespread corruption.

The aim must be to stay with the objective of inclusive growth that was laid down by the founding fathers of the nation and also to take a more modern view of what the State can realistically deliver. This is what leads to the idea of an enabling State, that is, a Government that does not try to directly deliver to the citizens everything that they need. Instead, it (1) creates an enabling ethos for the market so that individual enterprise can flourish and citizens can, for the most part, provide for the needs of one another, and (2) steps in to help those who do not manage to do well for themselves, for there will always be individuals, no matter what the system, who need support and help. Hence we need a Government that, when it comes to the market, sets effective, incentive-compatible rules and remains on the sidelines with minimal interference, and, at the same time, plays an important role in directly helping the poor by ensuring that they get basic education and health services and receive adequate nutrition and food.

13. **According to the passage :**

- (1) The objective of inclusive growth was laid down by the founding fathers of the nation.
- (2) Need of the hour is to have an enabling Government.
- (3) The Government should engage in maximum interference in market processes.
- (4) There is a need to change the size of the Government.

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

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

14. **According to the passage, the strategy of inclusive growth can be effected by focusing on**

- (a) Meeting all the needs of every citizen in the country.
- (b) Increasing the regulations over the manufacturing sector.
- (c) Controlling the distribution of manufactured goods.
- (d) Delivery of the basic services to the deprived sections of the society.

**15. What constitutes an enabling Government ?**

- (1) A large bureaucracy.
- (2) Implementation of welfare programmes through representatives.
- (3) Creating an ethos that helps individual enterprise.
- (4) Providing resources to those who are underprivileged.
- (5) Offering direct help to the poor regarding basic services.

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

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

**16. Why is the State unable to deliver "all that is needed" ?**

- (1) It does not have sufficient bureaucracy.
- (2) It does not promote inclusive growth.

**Select the correct answer from the codes given below ?**

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

**17. What is the essential message being conveyed by the author of the passage ?**

- (a) The objectives of inclusive growth laid down by the founding fathers of the nation should be remembered.
- (b) The Government needs to make available more schools and health services.
- (c) The Government needs to establish markets and industries to meet the needs of the poor strata of the society.
- (d) There is a need to rethink the role of the State in achieving inclusive growth.

**PASSAGE-2**

The concept of 'creative society' refers to a phase of development of a society in which a large number of potential contradictions become articulate and active. This is most evident when oppressed social groups get politically mobilised and demand their rights. The upsurge of the peasants and tribals, the movements for regional autonomy and self-determination, the environmental movements, and the women's movements in the developing countries are signs of emergence of creative society in contemporary times. The forms of social movements and their intensity may vary from country to country and place to place within a country. But the very presence of movements for social transformation in various spheres of a society indicates the emergence of a creative society in a country.

**18. What does the author imply by "creative society" ?**

- (1) A society where diverse art forms and literary writings seek incentive
- (2) A society where social inequalities are accepted as the norm.
- (3) A society where a large number of contradictions are recognised.
- (4) A society where the exploited and the oppressed groups grow conscious of their human rights and upliftment.

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

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



19. What according to the passage are the manifestations of social movements ?

- (1) Aggressiveness and being incendiary.
- (2) Instigation by external forces.
- (3) Quest for social equality and individual freedom.
- (4) Urge for granting privileges and self-respect to disparaged sections of the society.

Select the correct answer using the codes given below :

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

20. With reference to the passage, consider the following statements :

- (1) To be a creative society, it is essential to have a variety of social movements.
- (2) To be a creative society, it is imperative to have potential contradictions and conflicts.

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

21. Consider the following three statements :

- (1) Only students can participate in the race.
- (2) Some participants in the race are girls.
- (3) All girl participants in the race are invited for coaching

Which one of the following conclusions can be drawn from the above statements ?

- (a) All participants in the race are invited for coaching.
- (b) All students are invited for coaching.
- (c) All participants in the race are students.
- (d) None of the statements (a), (b) and (c) given above is correct.

Directions for the following 2 (two) items :

Each of the following two items consists of four statements. Of these four statements, two cannot both be true, but both can be false. Study the statements carefully and identify the two that satisfy the above condition. Select the correct answer using the codes given below each set of statements ?

22. Examine the following statements :

- (a) All animals are carnivorous.
- (b) Some animals are not carnivorous.
- (c) Animals are not carnivorous.
- (d) Some animals are carnivorous.

Codes

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

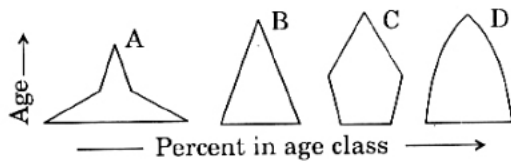
23. Examine the following statements :

- (1) All animals are carnivorous.
- (2) Some trains are run by diesel engine.
- (3) No train is run by diesel engine.
- (4) Some trains are not run by diesel engine.

Codes

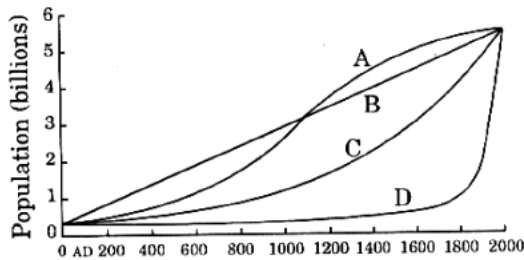
- (a) 1 and 2    (b) 2 and 3    (c) 1 and 3    (d) 1 and 4

24. Consider the four age pyramids given below namely A, B, C and D representing four different countries.



Which one of them indicates the declining population ?

- (a) A                      (b) B                      (c) C                      (d) D
25. The following figure has four curve namely A, B, C and D. Study the figure and answer the item that follows.



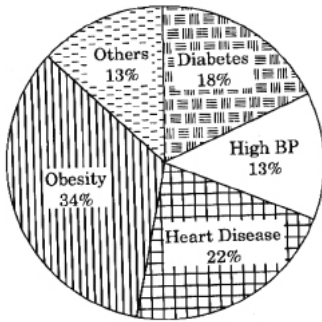
Which curve indicates the exponential growth ?

- (a) A                      (b) B                      (c) C                      (d) D

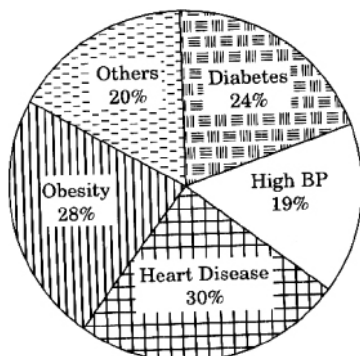
Directions for the following 2 (two) items :

The following pie charts show the break-up of disease categories recorded in the patients from two towns, Town A and Town B. pie charts plot the disease categories as percentage of the total number of patients. Based on these, answer the two items that follow the charts.

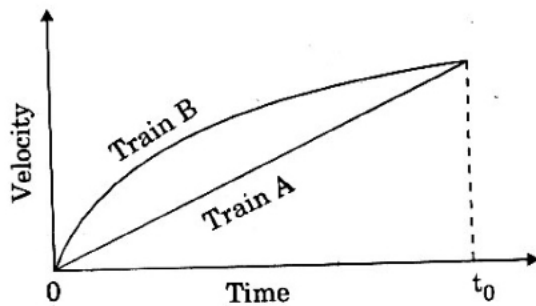
Distribution of diseases in Town – A



Distribution of diseases in Town – B



26. Which of the two towns has a higher number of persons with Diabetes ?
- (a) Town A (b) Town B  
(c) Same in Town A and Town B (d) No inference can be drawn
27. What can we say about persons with more than one disease from these graphs ?
- (a) There are likely to be persons with more than one disease in Town A.  
(b) There are likely to be persons with more than one disease in Town B.  
(c) There are likely to be persons with more than one disease in both Towns A and B.  
(d) No inference can be drawn.
28. Consider the following Velocity – Time graph. It shows two trains starting simultaneously on parallel tracks.



With reference to the above graph, which one of the following statements is not correct?

- (a) Train B has an initial acceleration greater than that of Train A.  
(b) Train B is faster than Train A at all times.  
(c) Both trains have the same velocity at time  $t_0$ .  
(d) Both trains travel the same distance in time  $t_0$  units.

Directions for the following 4 (four) items :

Read the following passage and answer the items that follow. Your answers to these items should be based on the passage only.

### PASSAGE

A country under foreign domination seeks escape from the present in dreams of a vanished age, and finds consolation in visions of past greatness. That is a foolish and dangerous pastime in which many of us indulge. An equally questionable practice for us in India is to imagine that we are still spiritually great though we have come down in the world in other respects. Spiritual or any other greatness cannot be founded on lack of freedom and opportunity, or on starvation and misery. Many western writers have encouraged that notion that Indians are other-worldly. I suppose the poor and unfortunate in every country become to some extent other-worldly, unless they become revolutionaries, for this world is evidently not meant for them. So also subject peoples.

As a man grows to maturity he is not entirely engrossed in, or satisfied with, the external objective world. He seeks also some inner meaning, some psychological and physical satisfactions. So also with peoples and civilizations as they mature and grow adult. Every civilization and every people exhibit these parallel streams of an external life and an internal life. Where they meet or keep close to

each other, there is an equilibrium and stability. When they diverge conflict arises and the crises that torture the mind and spirit.

29. The passage mentions that "this world is evidently not meant for them". It refers to people who

- (1) seek freedom from foreign domination.
- (2) live in starvation and misery.
- (3) become revolutionaries.

Which of the statements given above is/are correct ?

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

30. Consider the following assumptions :

- (1) A country under foreign domination cannot indulge in spiritual pursuit.
- (2) Poverty is an impediment in the spiritual pursuit.
- (3) Subject peoples may become other-worldly.

Which reference to the passage, which of the above assumptions is/are valid ?

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

31. The passage thematically centres on

- (a) the state of mind of oppressed people
- (b) starvation and misery
- (c) the growth of civilization
- (d) body, mind and spirit of people in general

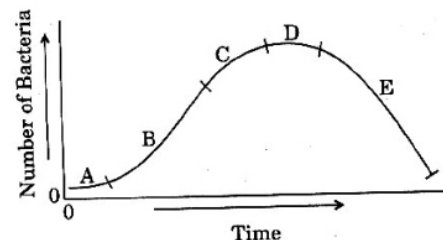
32. According to the passage, the torture of the mind and spirit is caused

- (a) by the impact of foreign domination.
- (b) by the desire to escape from foreign domination and find consolation in visions of past greatness.
- (c) due to lack of equilibrium between an external life and an internal life.
- (d) due to one's inability to be either revolutionary or other-worldly.

Directions for the following 3 (three) items :

Read the passage given below, study the graph that follows and answer the three items given below the figure.

During a party, a person was exposed to contaminated water. A few days later, he developed fever and loose motions. He suffered for some days before going to a doctor for treatment. On starting the treatment, he soon became better and recovered completely a few days later. The following graph



shows different phases of the person's disease condition as regions A, B, C, D and E of the curve.

33. Which region/regions of the curve correspond/corresponds to incubation phase of the infection ?

- (a) A only

- (b) B only
- (c) B and C
- (d) No part of the curve indicates the incubation phase

34. Which region of the curve indicates that the person began showing the symptoms of infection ?

- (a) A
- (b) B
- (c) C
- (d) D

35. Which region of the curve indicates that the treatment yielded effective relief ?

- (a) C
- (b) D
- (c) E
- (d) The curve does not indicate the treatment.

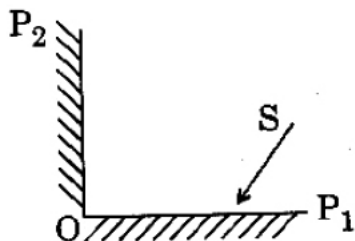
36. There are four routes to travel from city A to city B and six routes from city B to city C. How many routes are possible to travel from the city A to city C ?

- (a) 24
- (b) 12
- (c) 10
- (d) 8

37. A contract on construction job specifies a penalty for delay in completion of the work beyond a certain date is as follows : 200 for the first day, 250 for the second day, 300 for the third day etc., the penalty for each succeeding day being 50 more than that of the preceding day. How much penalty should the contractor pay if he delays the work by 10 days ?

- (a) 4950
- (b) 4250
- (c) 3600
- (d) 650

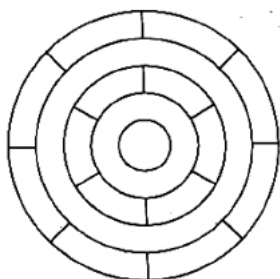
38. Consider the figure given below and answer the item that follows :



In the figure shown above, OP<sub>1</sub> and OP<sub>2</sub> are two plane mirrors kept perpendicular to each other. S is the direction of a beam of light falling on the mirror OP<sub>1</sub>. The direction of the reflected beam of light from the mirror OP<sub>2</sub> will be

- (a) Perpendicular to the directions S.
- (b) At 45° to the direction S.
- (c) Opposite and parallel to the direction S.
- (d) At 60° to the direction S.

39. Consider the following figure and answer the item that follows :



What is the minimum number of different colours required to paint the figure given above such that no two adjacent regions have the same colour ?

- (a) 3                      (b) 4                      (c) 5                      (d) 6

40. Consider the following figure and answer the item that follows :

|    |    |
|----|----|
| 15 |    |
|    | 48 |

A square is divided into four rectangles as shown above. The lengths of the sides of rectangles are natural numbers. The areas of two rectangles are indicated in the figure. What is the length of each side of the square ?

- (a) 10  
 (b) 11  
 (c) 15  
 (d) Cannot be determined as the given data are insufficient
41. A person has only 1 and 2 coins with her. If the total number of coins that she has is 50 and the amount of money with her is 75m then the number of 1 and 2 coins are, respectively
- (a) 15 and 35              (b) 35 and 15              (c) 30 and 20              (d) 25 and 25
42. Three persons start walking together and their steps measure 40 cm, 42 cm and 45 cm respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps ?
- (a) 25 m 20 cm              (b) 50 m 40 cm              (c) 75 m 60 cm              (d) 100 m 80 cm
43. If a bus travels 160 km in 4 hours and a train travels 320 km in 5 hours at uniform speeds, then what is the ratio of the distances travelled by them in one hour?
- (a) 8 : 5                      (b) 5 : 8                      (c) 4 : 5                      (d) 1 : 2
44. There are 100 students in a particular class. 60% students play cricket, 30% student play football and 10% students play both the games. What is the number of students who play neither cricket nor football ?
- (a) 25                      (b) 20                      (c) 18                      (d) 15
45. A village having a population of 4000 requires 150 litres of water per head per day. It has a tank measuring 20 m 15 m 6 m. The water of this tank will last for
- (a) 2 days                      (b) 3 days                      (c) 4 days                      (d) 5 days

Directions for the following 4 (four) items :

Read the following passage and answer the items that follow. Your answers to these items should be based on the passage only.

**PASSAGE**

A species that exerts an influence out of proportion to its abundance in an ecosystem is called a

keystone species. The keystone species may influence both the species richness of communities and the flow of energy and materials through ecosystems. The sea star *Pisaster ochraceus*, which lives in rocky intertidal ecosystems on the Pacific coast of North America, is also an example of a keystone species. Its preferred prey is the mussel *Mytilus californianus*. In the absence of sea stars, these mussels crowd out other competitors in a broad belt of the intertidal zone. By consuming mussels, sea star creates bare species that are taken over by a variety of other species.

A study at the University of Washington demonstrated the influence of *Pisaster* on species richness by removing sea stars from selected parts of the intertidal zone repeatedly over a period of five years. Two major changes occurred in the areas from which sea stars were removed. First, the lower edge of the mussel bed extended farther down into the intertidal zone, showing that sea stars are able to eliminate mussels completely where they are covered with water most of the time. Second, and more dramatically, 28 species of animals and algae disappeared from the sea star removal zone. Eventually only *Mytilus*, the dominant competitor, occupied the entire substratum. Through its effect on competitive relationships, predation by *Pisaster* largely determines which species live in these rocky intertidal ecosystems.

**46. What is the crux of the passage ?**

- (a) Sea star has a preferred prey.
- (b) A preferred prey determines the survival of a keystone species.
- (c) Keystone species ensures species diversity.
- (d) Sea star is the only keystone species on the Pacific coast of North America.

**47. With reference to the passage, consider the following statements :**

- (1) Mussels are generally the dominant species in intertidal ecosystems.
- (2) The survival of sea stars is generally determined by the abundance of mussels.

**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

**48. Which of the following is/are implied by the passage ?**

- (1) Mussels are always hard competitors for sea stars.
- (2) Sea stars of the Pacific coast have reached the climax of their evolution.
- (3) Sea stars constitute an important component in the energy flow in intertidal ecosystem.

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

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

**49. Consider the following assumptions :**

- (1) The food chains/food web in an ecosystem are influenced by keystone species.
- (2) The presence of keystone species is a specific characteristic of aquatic ecosystems.
- (3) If the keystone species is completely removed from an ecosystem, it will lead to the collapse of the ecosystem.

**With reference to the passage, which of the above assumptions is/are valid ?**

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

50. Consider the following argument :
- "In order to be a teacher one must graduate from college. All poets are poor. Some Mathematicians are poets. No college graduate is poor."**
- (a) Some Mathematicians are not teachers.  
(b) Some teachers are not Mathematicians.  
(c) Teachers are not poor.  
(d) Poets are not teachers.
51. A student on her first 3 tests received an average score of  $N$  points. If she exceeds her previous average score by 20 points on her fourth test, then what is the average score for the first 4 tests ?
- (a)  $N + 20$                       (b)  $N + 10$                       (c)  $N + 4$                       (d)  $N + 5$
52. In a group of persons, 70% of the persons are male and 30% of the persons are married. If two-sevenths of the males are married, what fraction of the females is single ?
- (a)  $2/7$                       (b)  $1/3$                       (c)  $3/7$                       (d)  $2/3$
53. The houses of A and B face each other on a road going north-south, A's being on the western side. A comes out of his house, turns left, travels 5 km, turns right, travels 5 km to the front of D's house. B does exactly the same and reaches the front of C's house. In this context, which one of the following statements is correct ?
- (a) C and D live on the same street.  
(b) C's house faces south.  
(c) The houses of C and D are less than 20 km apart.  
(d) None of the above

**Directions for the following 6 (six) items :**

**Read each of the following two passages and answer the items that follow. Your answers to these items should be based on the passages only.**

### PASSAGE-1

Ecosystems provide people with a variety of goods and services; food, clean water, clean air, flood control, soil stabilization, pollination, climate regulation, spiritual fulfilment and aesthetic enjoyment, to name just a few. Most of these benefits either are irreplaceable or the technology necessary to replace them is prohibitively expensive. For example, potable fresh water can be provided by desalinating sea-water, but only at great cost.

The rapidly expanding human population has greatly modified the Earth's ecosystems to meet their increased requirements of some of the goods and services, particularly food, fresh water, timber, fibre and fuel. These modifications have contributed substantially to human well-being and economic development. The benefits have not been equally distributed. Some people have actually been harmed by these changes. Moreover, short-term increases in some ecosystem goods and services have come at the cost of the long-term degradation of others. For example, efforts to increase the production of food and fibre have decreased the ability of some ecosystems to provide clean water, regulate flooding and support biodiversity.



54. With reference to the passage, consider the following statements.

**Expanding human population has an adverse effect on :**

- |                          |                                  |
|--------------------------|----------------------------------|
| (1) Spiritual fulfilment | (2) aesthetic enjoyment          |
| (3) Potable fresh water  | (4) Production of food and fibre |
| (5) Biodiversity         |                                  |

**Answer Options**

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

55. The passage mentions that "some people have actually been harmed by these changes", What does it imply ?

- (1) The rapid expansion of population has adversely affected some people.
- (2) Sufficient efforts have not been made to increase the production of food and fibre.
- (3) In the short term some people may be harmed, but in the long term everyone will benefit from modifications in the Earth's ecosystems.

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

- |             |                                        |
|-------------|----------------------------------------|
| (a) 1 only  | (b) 2                                  |
| (c) 1 and 3 | (d) None of the statements given above |

56. With reference to the passage, consider the following statements :

- (1) It is imperative to modify the Earth's ecosystems for the well being of mankind.
- (2) Technology can never replace all the goods and services provided by ecosystems.

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

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

### PASSAGE-2

A moral act must be our own act; must spring from our own will. If we act mechanically, there is no moral content in our act. Such action would be moral, if we think it proper to act like a machine and do so. For, in doing so, we use our discrimination. We should bear in mind the distinction between acting mechanically and acting intentionally. It may be moral of a king to pardon a culprit. But the messenger carrying out the order of pardon plays only a mechanical part in the king's moral act. But if the messenger were to carry out the king's order considering it to be his duty, his action would be a moral one. How can a man understand morality who does not use his own intelligence and power of thought, but lets himself be swept along like a log of wood by a current ? Sometimes a man defies convention and acts on his own with a view to absolute good.

57. Which of the following statements best describe / describes the thought of the writer ?

- (1) A moral act calls for using our discretion.
- (2) Man should react to a situation immediately.
- (3) Man must do his duty.
- (4) Man should be able to defy convention in order to be moral.

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

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

58. Which of the following statements is the nearest definition of moral action, according to the writer ?

- (a) It is a mechanical action based on official orders from superiors.
- (b) It is an action based on our sense of discretion.
- (c) It is a clever action based on the clarity of purpose.
- (d) It is a religious action based on understanding.

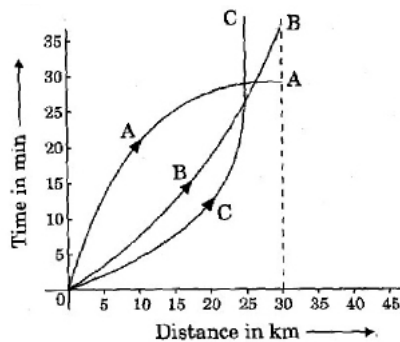
59. The passage contains a statement "lets himself be swept along like a log of wood by a current." Among the following statements, which is / are nearest in meaning to this ?

- (1) A person does not use his own reason.
- (2) He is susceptible to influence / pressure.
- (3) He cannot withstand difficulties / challenges.
- (4) He is like a log of wood.

Select the correct answer using the codes given below :

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

60. Consider the following distance – time graph. The graph shows three athletes A, B and C running side by side for a 30 km race.



With reference to the above graph, consider the following statements :

- (1) The race was won by A
- (2) B was ahead of A up to 25 km mark.
- (3) C ran very slowly from the beginning.

Which or the statements given above is/are correct ?

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

61. Consider the following figures :

|    |    |
|----|----|
| 2  | 6  |
| 80 | 24 |

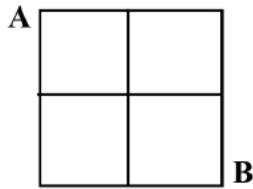
|    |    |
|----|----|
| 3  | ?  |
| 24 | 36 |

What is the missing number ?

- (a) 7
- (b) 8
- (c) 9
- (d) 10

62. Study the following figure :

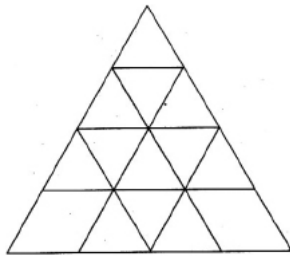
A person goes from A to B always moving to the right or downwards along the lines. How many different routes can he adopt ?



Select the correct answer from the codes given below :

- (a) 4                      (b) 5                      (c) 6                      (d) 7

63. Consider the following figure and answer the item that follows :



What is the total number of triangles in the above grid ?

- (a) 27                      (b) 26                      (c) 23                      (d) 22

Directions for the following 9 (nine) items :

The following nine items (Questions 64 to 72) are based on three passages in English to test the comprehension of English language and therefore these items do not have Hindi version. Read each passage and answer the items that follow.

### PASSAGE-I

He walked several miles that day but could not get anything to eat or drink except some dry bread and some water, which he got from cottagers and farmers. As night fell, he slept under a haystack lying in a meadow. He felt frightened at first, for the wind blew awfully over the empty fields. He felt cold and hungry, and was feeling more lonely than he had ever felt before. He, however, soon fell asleep, being much tired with his long walk. When he got up next day, he was feeling terribly hungry so he purchased a loaf of bread with a few coins that he had.

64. When the night fell, he slept

- (a) in the open field                      (b) under a pile of dry grass  
(c) in a farmer's cottage                      (d) under a tree

65. He soon fell asleep because

- (a) he was exhausted                      (b) he was all alone  
(c) he had not slept for days                      (d) he was very frightened

66. With reference to the passage, consider the following statements :

- (a) He was walking through the countryside.

- (b) The cottagers and farmers gave him enough food so that he could sleep at night without feeling hungry.

**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

### PASSAGE-II

I opened the bag and packed the boots in; and then, just as I was going to close it, a horrible idea occurred to me. Had I packed my toothbrush ? I don't know how it is, but I never do know whether I've packed my toothbrush.

My toothbrush is a thing that haunts me when I'm travelling, and makes my life a misery. I dream that I haven't packed it, and wake up in a cold for it. And, in the morning, I pack it before I have used it, and it is always the last thing I turn out of the bag; and then I repack and forget it, and have to rush upstairs for it at the last moment and carry it to the railway station, wrapped up in my pocket-handkerchief.

- 67. When he was going to close the bag, the idea that occurred to him was**  
(a) unpleasant                      (b) sad                      (c) fantastic                      (d) amusing
- 68. What makes his life miserable whenever he undertakes travelling ?**  
(a) Going to railway station                      (b) Forgetting the toothbrush  
(c) Packing his bag                      (d) Bad dreams
- 69. His toothbrush is finally**  
(a) in his bag                      (b) in his bed  
(c) in his handkerchief                      (d) lost

### PASSAGE-III

In spring, polar bear mothers emerge from dens with three month old cubs. The mother bear has fasted for as long as eight months but that does not stop the young from demanding full access to her remaining reserves. If there are triplets, the most persistent stands to gain an extra meal and it may have the meal at the expense of others. The smallest of the litter forfeits many meals to stronger siblings. Females are protective of their cubs but tend to ignore family rivalry over food. In 21 years of photographing polar bears, I've only once seen the smallest of triplets survive till autumn.

- 70. Female polar bears give birth during**  
(a) spring                      (b) summer                      (c) autumn                      (d) winter
- 71. Mother bear**  
(a) takes sides over cubs                      (b) lets the cubs fend for themselves  
(c) feeds only their favourites                      (d) sees that all cubs get an equal share
- 72. With reference to the passage, the following assumptions have been made :**  
(1) Polar bears fast as long as eight months due to non-availability of prey.  
(2) Polar bears always give birth to triplets.

**Which of the assumptions given above is/are valid ?**

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

**Directions for the following 8 (eight) items :**

**Given below are eight items. Each item describes a situation and is followed by four possible**

responses. Indicate the response you find most appropriate. Choose only one response for each item. The responses will be evaluated based on the level of appropriateness for the given situation.

Please attempt all the items. There is no penalty for wrong answers for these eight items.

73. **You have been asked to give an explanation for not attending an important official meeting. Your immediate boss who has not informed you about the meeting is now putting pressure on you not to place an allegation against him/her. You would**
- (a) send a written reply explaining the fact.
  - (b) seek an appointment with the top boss to explain the situation.
  - (c) admit your fault to save the situation.
  - (d) put the responsibility on the coordinator of the meeting for not informing.
74. **A local thug (bad element) has started illegal construction on your vacant plot. He has refused your request to vacate and threatened you of dire consequences in case you do not sell the property at a cheap price to him. You would**
- (a) sell the property at a cheap price to him.
  - (b) go to the police for necessary action.
  - (c) ask for help from your neighbours.
  - (d) negotiate with the goon to get a higher price.
75. **You have to accomplish a very important task for your Headquarters within the next two days. Suddenly you meet with an accident. Your office insists that you complete the task. You would**
- (a) ask for an extension of deadline.
  - (b) inform Headquarters of your inability to finish on time.
  - (c) suggest alternate person to Headquarters who may do the needful.
  - (d) stay away till you recover.
76. **You are an officer-in-charge for providing basic medical facilities to the survivors of an earthquake affected area. Despite your best possible effort, people put allegations against you for making money out of the funds given for relief. You would**
- (a) let an enquiry be set up to look into the matter.
  - (b) ask your senior to appoint some other person in your place.
  - (c) not pay attention to allegations.
  - (d) stop undertaking any initiative till the matter is resolved.
77. **You have been made responsible to hire boats at a short notice to be used for an area under flood. On seeing the price mentioned by the boat owners you found that the lowest price was approximately three times more than the approved rate of the Government. You would.**
- (a) reject the proposal and call for a fresh price.
  - (b) accept the lowest price.
  - (c) refer the matter to the Government and wait.
  - (d) threaten the boat owners about a possible cancellation of the licence.

- 78. You are the officer-in-charge of a village administering distribution of vaccine in an isolated epidemic hit village, and you are left with only one vaccine. There is a requirement of that vaccine from the Gram Pradhan and also a poor villager. You are being pressurised by the Gram Pradhan to issue the vaccine to him. You would**
- (a) initiate the procedure to expedite the next supply without issuing the vaccine to either.
  - (b) arrange vaccine for the poor villager from the distributor of another area.
  - (c) ask both to approach a doctor and get an input about the urgency.
  - (d) arrange vaccine for the Gram Pradhan from the distributor of another area.
- 79. You have taken up a project to create night-shelters for homeless people during the winter season. Within a week of establishing the shelters, you have received complaints from the residents of the area about the increase in theft cases with a demand to remove the shelters. You would**
- (a) ask them to lodge a written complaint in the police station.
  - (b) assure residents of an enquiry into the matter.
  - (c) ask residents to consider the humanitarian effort made.
  - (d) continue with the project and ignore their complaint.
- 80. You, as an administrative authority, have been approached, by the daughter-in-law of an influential person regarding harassment by her in-laws on account of insufficient dowry. Her parents are not able to approach you because of social pressures. You would**
- (a) call the in-laws for an explanation.
  - (b) counsel the lady to adjust, given such a circumstance.
  - (c) take action after her parents approach you.
  - (d) ask her to lodge a complaint with the police.

□□