

CIVIL SERVICES PRELIMS – MODEL PAPER

No. of Questions: 100

Marks: 200

Time: 2 Hrs

1. Which of the following represents the difference between GNP at market prices and GDP at market prices?
 - a) Imports minus exports
 - b) The value of depreciation
 - c) The value of taxes and subsidies
 - d) Net factor income from abroad
2. Potential GDP, when it is less than the real GDP, following is one of the features of the economy
 - a) Prices rise
 - b) Trade deficit is low
 - c) Economy needs to be stimulated
 - d) All the above
3. When a public sector company needs financial resources, it can go for all but one of the following?
 - a) internal borrowings
 - b) external borrowings
 - c) disinvestment
 - d) issue shares to raise capital
4. 'Stimulus' of the economy does not include the following
 - i) raising direct taxes
 - ii) lowering indirect taxes
 - iii) lowering interest rates
 - iv) increase in private investment
 - a) i and iii only
 - b) ii and iv only
 - c) i and iv only
 - d) ii, iii and iv only
5. Because of inflation, the following is an unlikely consequence
 - i) rupee will lose its value in the domestic economy.
 - ii) exchange rate will erode, in the case of Indian economy.
 - iii) exports are likely to increase.
 - iv) real interest rate will fall.
 - a) i and ii only
 - b) iii and iv only
 - c) iv only
 - d) ii and iv only
6. Regarding the domestic savings in the country, following is correct
 - i) financial savings are more than physical savings.
 - ii) corporate savings are equal to household savings.
 - iii) scheme for monetising gold introduced in Union Budget 2015 – 16 added to financial savings in the country.
 - iv) relaunch of saving instrument Kisan Vikas Patra (KVP) in the fiscal year 2013 – 14 is aimed at boosting financial savings in the country.
 - a) i only
 - b) i and iv only
 - c) i, iii and iv only
 - d) None of the above

7. Consider the following statements:
- i) U Srinivas was a famous Mandalin Player. He passed away last year.
 - ii) Mandalin is the integral part of Carnatic music.
- Which of the above is / are correct?
- a) Only i
 - b) Only ii
 - c) Both
 - d) None
8. Which of the following painting(s) is / are awarded with GI?
- i) Nirmal Painting
 - ii) Cheriya Serolis
 - iii) Shrikalahasti Kalamkari
 - iv) Tanjayur Paintings
- a) Only i & iv
 - b) Only iv & ii
 - c) Only ii & iii
 - d) All the above
9. Which of the following statements is / are true, about the Woods dispatch?
- i) Education in Vernacular languages.
 - ii) Westernization of Indian education.
 - iii) Provision of education only by public institutions.
- a) Only i & iii
 - b) Only ii
 - c) Only iii
 - d) Only i
10. Which of the following reasons is / are correct for the failure of French & success of British in India?
- i) Commercial & naval superiority of British.
 - ii) England's victory in European wars.
 - iii) Lack of support of French from any Mughal Emperor
- a) i & ii only
 - b) ii & iii only
 - c) i only
 - d) All the above
11. Which of the following is / are the correct characteristic (s) of primary seismic wave?
- a) It is a longitudinal and compressional wave
 - b) It is analogous to sound waves
 - c) It travels with faster speed through solids but slowly through liquids
 - d) All the above three
12. Which of the following are formed due to collision of continental plates?
- 1. The Alps
 - 2. The Himalayas
 - 3. The Rockies
 - 4. The Caucasus Mountains
- Select the correct answer using the codes given below:
- a) 1, 2 and 3
 - b) 2, 3 and 4
 - c) 1, 2 and 4
 - d) 1, 3 and 4
13. Which one of the following statements is correct?
- a) Jet streams are best developed in winters
 - b) Jet streams often develop oscillations
 - c) Jet streams greatly influence our surface weather
 - d) All the above three are correct in respect of jet streams

14. What is the correct sequence of the following zonal pressure belts?
1. Subpolar low 2. Equatorial low 3. Polar high 4. Subtropical high
Select the correct answer using the codes given below:
a) 2 – 3 – 1 – 4 b) 1 – 4 – 2 – 3 c) 2 – 4 – 1 – 3 d) 1 – 3 – 2 – 4
15. Temperature generally decreases towards the poles because
- a) Air movement is generally towards the equator
b) Cold polar air masses prevent surface heating of the land
c) Cold surfaces do not absorb solar energy as readily as warm surfaces
d) Progressively lesser solar energy per unit area falls on the earth's surface as we move to polar regions
16. A temperature inversion is most likely to occur under which of the following conditions?
- a) Mountain top in late evening
b) Windy but cloudy night
c) Calm, cloudy and humid night
d) Calm, clear and cool winter night
17. During biological nitrogen fixation, inactivation of nitrogenase by oxygen poisoning is prevented by:
- a) Leghemoglobin b) Xanthophyll c) Carotene d) Cytochrome
18. The species confined to a particular region and not found elsewhere is termed as:
- a) Keystone b) Alien c) Endemic d) Rare
19. During ecological succession:
- a) the gradual and predictable change in species composition occurs in a given area.
b) the establishment of a new biotic community is very fast in its primary phase.
c) the numbers and types of animals remain constant.
d) the changes lead to a community that is in near equilibrium with the environment and is called pioneer community.
20. Most animals that live in deep oceanic waters are:
- a) primary consumers b) secondary consumers
c) tertiary consumers d) detritivores
21. Increase in concentration of the toxicant at successive trophic levels is known as
- a) Biomagnification b) Biodeterioration
c) Biotransformation d) Biogeochemical cycling
22. Which two of the following situations are most likely to result in cost push' inflation?
- i) commodity prices have fallen
ii) Government reduces subsidies
iii) Rupee depreciates
iv) Statutory Liquidity Ratio (SLR) is decreased
- a) i and iii only b) ii and iv only c) ii and iii only d) ii, iii and iv only

23. All the following statements are incorrect except:
- The rate of inflation is the same regardless of the price index used to calculate it.
 - The price index is always growing over time.
 - The basket of goods used to calculate the price index is changing over time.
 - The price index cannot be used to deflate current prices into constant prices.
- a) i and iv only b) ii and iii only
 c) i and iii only d) ii and iv only
24. Laffer curve relates to
- balance of payments
 - indirect taxes
 - direct taxes
 - government revenues
- a) ii, iii and iv only b) iii only c) ii and iii only d) all the above
25. Agricultural productivity responds positively to
- credit advanced to farmers.
 - technology application.
 - market stabilization fund for various agricultural commodities.
 - agricultural diversification.
- a) ii and iv only b) iii and iv only
 c) ii,iii and iv only d) iv only
26. When Vice President chair is vacant, who steps in as Vice President?
- Deputy Chairperson
 - Chief justice of India
 - President takes up the additional duty
 - Speaker
27. Private Members Can not introduce the following bills
- Money Bills
 - Finance Bills
 - Constitutional Amendment Bills
 - None of the Above
28. Which of the following statements is / are true about the Sangam Age?
- Hereditary monarchy was the form of Government.
 - State was involved in foreign trade.
 - Land revenue was not charged by the state.
 - There was a separate military wing in administration.
- a) i & ii only b) iii & iv only
 c) i, ii, & iv only d) all the above
29. Which of the following statements is/are true about the Chalukyan administration?
- High centralization
 - Absence of village autonomy
 - A strong maritime Power
- a) i & ii only b) ii & iii only c) i & iii only d) all the above

30. One of the major failures of Zamindari System was the lack of 'Pattas' granted to the peasants by the Zamindars. Why did it happen?
- British Govt. later retracted on the decision of granting pattas
 - Most of the farmers didn't register for the grant
 - Zamindars were not officially accountable to the British for the grant of pattas
 - A nexus between Zamindars & British officials allowed them to allot land among themselves.
31. Vedas were useful for which of the following purposes:
- Religious rituals & sacrifices
 - Answers to mythical questions
 - For appropriate governance in local Kingdoms
- only i & ii
 - only ii & iii
 - only i & iii
 - all of the above
32. The clouds extending from one side of horizon to other as a dark grey sheet having uniform base are called:
- Stratus clouds
 - Cumulus clouds
 - Cirrus clouds
 - Nimbus clouds
33. Which one of the following statements is correct? Hurricanes
- form at the equator
 - are not as large as tornadoes
 - develop over warm ocean areas
 - tend to intensify when they move over land surfaces
34. Which one of the following regions has a Mediterranean type of climate?
- Cape Town region of South Africa
 - Great Plains of North America
 - North – Eastern Australia
 - Southern Algeria
35. **Assertion (A):** Generally, temperature decreases from the equator towards poles which is called temperature gradient. But the highest temperature is never recorded at the equator, instead it is recorded near both the tropics.
- Reason (R):** A sizeable portion of the incoming solar radiation is reflected by clouds and a large part of heat is spent in the process of evaporation.
- Both (A) and (R) are true and (R) is the correct explanation of (A).
 - Both (A) and (R) are true, but (R) is not the correct explanation of (A).
 - (A) is true, but (R) is false.
 - (A) is false, but (R) is true.
36. The coastline formed by the submergence of mountain ridges running parallel to the coast is known as:
- Dalmation coast
 - Ria coast
 - Fiord coast
 - Haff coast

37. Coral reefs are formed by
- a) Volcanic rocks
 - b) Marine sediments
 - c) Chlorine material precipitated from sea water
 - d) Tiny colonial marine animals which construct limestone skeleton material
38. Eutrophication of water bodies leading to killing of fishes is mainly due to non-availability of:
- a) food
 - b) light
 - c) essential minerals
 - d) oxygen
39. One of the anthropogenic sources of gaseous pollutants chlorofluorocarbons (CFCs) in air is
- a) Cement industry
 - b) Fertiliser industry
 - c) Foam industry
 - d) Pesticide industry
40. In terms of total CO₂ emissions from a country, identify the correct sequence:
- a) U.S.A. > China > India > Russia
 - b) China > U.S.A. > India > Russia
 - c) China > U.S.A. > Russia > India
 - d) U.S.A. > China > Russia > India
41. Which radioactive element is considered as an indoor pollutant?
- a) Oxygen - 18
 - b) Nitrogen - 15
 - c) Carbon - 13
 - d) Radon
42. Fundamental Rights can be abridged by
- a) Union Government
 - b) State Government
 - c) Local Self Government
 - d) All the above
43. Following is an Example of Consumption Tax
- i) Octroi
 - ii) Sales Tax
 - iii) Luxury Tax
 - iv) Entertainment Tax
- a) i & ii only
 - b) i, iii & iv only
 - c) i, ii & iii only
 - d) i, ii, iii & iv
44. Mark the odd one out.
- i) Angel Investors
 - ii) Venture Capitalist
 - iii) Private Equity
 - iv) Startups
- a) i, ii & iii only
 - b) i, ii, iv only
 - c) ii, iii, iv only
 - d) None of the above
45. About compulsory voting, one of the following is not true.
- i) Quality of governance will improve because electoral participation among the adult citizens is compulsory.
 - ii) Coalition government will be a thing of the past.
 - iii) Money power in elections will decrease.
 - iv) Parliamentary accountability will be more.
- a) i & iii only
 - b) ii, iii & iv only
 - c) All of the above
 - d) None of the above
46. A bill related to Goods & Service Tax (GST) is pending in the Parliament presently.
- i) It is a Constitutional Amendment Bill
 - ii) A Money Bill
 - iii) Finance Bill
 - iv) Ordinary Bill
- a) i only
 - b) i & ii only
 - c) i & iii only
 - d) iv only

47. Joint session of the Parliament can be held
- there is a disputes about the bill between the two houses.
 - there is dispute between the two houses regarding a resolution during its Parliamentary passage.
 - Presidential address at the beginning of every year.
 - Whenever the President of India desires it.
- a) i only b) i, & ii only c) iii & iv only d) i, ii, iii and iv
48. Which of the following is / are in sync with Gandhian economic philosophy?
- Self – sufficient villages
 - Labour intensive activities
 - Owners as the trustees of wealth
- Choose the correct answer code:
- a) Only i & ii b) Only ii & iii c) Only i & iii d) All the above
49. To which of the following movements, was the Manjeri conference associated with?
- Eka Movement
 - Malabar Uprising
 - Tebhaga Movement
 - Singpho's Rebellion
50. Which of the following was related to the Mansabdari system?
- Improving administration in far-flung regions
 - Military recruitment
 - Increasing revenue collection
- a) Only ii & iii b) Only i & ii c) Only ii d) Only iii
51. With reference to Bhakti Literature, 'Tirumurais' refer to:
- Composition of Thyagaraja
 - Collection of writings of Nayanars & Alvars
 - Goddess worshipped by the Alvars
 - Goddess worshipped by the Nayanars
52. Match List – I with List – II and select the correct answer:
- | List – I | List – II |
|----------------------------|--|
| A) Gulf Stream | 1) Pacific Ocean |
| B) West Wind Drift | 2) A slow eastward movement of water over the zone of westerly winds |
| C) Peru current | 3) Indian Ocean |
| D) West Australian current | 4) Warm current |
- a) A-4, B-2, C-1, D-3 b) A-1, B-3, C-4, D-2 c) A-4, B-3, C-1, D-2 d) A-1, B-2, C-4, D-3
53. The term 'syzygy' is referred to when the
- Earth is at perihelion and moon at perigee
 - Earth is at aphelion and moon at apogee
 - Moon and sun are at right angles with reference to the earth
 - Moon, sun and earth lie along a straight line

54. **Assertion (A):** Oceanic salinity is higher along Tropics of Cancer and Capricorn.
Reason (R): Increased evaporation coupled with relatively more insolation along these latitudes causes higher oceanic salinity.
- Both (A) and (R) are true and (R) is the correct explanation of (A).
 - Both (A) and (R) are true, but (R) is not the correct explanation of (A).
 - (A) is true, but (R) is false.
 - (A) is false, but (R) is true.
55. What happens to tropical soils when the rainforest is cleared?
- The soil improves to the extent that soluble nutrients are no longer depleted by the trees
 - There is little effect on the soil because of its depth of richness
 - Clearing interrupts the critical nutrient cycle and leads to soil leaching
 - The soils stabilise and become excellent for grain crops
56. Among the following climatic factors, which one has the least effect upon a terrestrial ecosystem?
- Temperature variation
 - Wind
 - Conditions of sunlight
 - Availability of water
57. The biome with the shortest growing season is
- Savanna
 - Taiga
 - Chaparral
 - Tundra
58. Accreditation of Environmental Consultant Organizations in India is done by
- Ministry of Environment, Forest and Climate Change
 - Central Pollution Control Board
 - Ministry of Earth Sciences
 - Quality Council of India
59. The best practice of disposal of construction and demolition (C & D) debris is
- Incineration
 - Recycling
 - Landfills
 - Solidification
60. Pyrolysis of Solid Waste refers to
- High temperature aerobic incineration
 - High temperature anaerobic distillation of waste for energy generation
 - Ambient aerobic distillation
 - Ambient anaerobic distillation
61. Citizen's Charter on Environment in the Constitution of India is embodied in
- Article 48
 - Article 48A
 - Article 49A
 - Article 51A
62. A Proclamation of National Emergency can last without the Lok Sabha ratification within the first thirty days of Proclamation under the following circumstances.
- Lok Sabha is in dissolution
 - Lok Sabha is not in session
 - Both a & b
 - None

63. About the Service Tax, read the following statements and answer the correct ones.
- It is imposed by the union government as part of its residuary powers.
 - It is not shared with the States.
 - Finance Commission recommends how it is distributed between Centre and States.
 - Finance Commission recommends how it is divide between the Centre and States and among the States.
- a) i only b) i & iv only c) ii & iii only d) ii & iv only
64. Read the following statements about national political parties as recognized by the Election Commission of India (ECI) and answer the correct ones among them.
- Samajwadi Party was never a national party.
 - Rastriyajanta Dal lost its status as a national party.
 - Janta Dal (Secular) and Janta Dal (United) are not national parties.
 - Definition of national parties is given by ECI for national party and for state parties it is State Election Commission.
- a) i, ii & iii are correct b) i, iii & iv are correct c) ii, iii & iv are correct d) None of the above
65. About the election of President of India, read the following and answer the correct one / (s)....
- The value of all the elected MLAs of all the state assemblies is the same.
 - The value of all the elected Assembly members of any given state is same.
 - The value of vote of all Elected Members of Parliament is the same.
 - The Speaker of Lok Sabha conducts of Election of President of India.
- a) ii & iv only b) ii & iii only c) ii, iii & iv only d) iii & iv only
66. Chief Justice of India (CJI) can be set to be enjoying higher status compared to brother judges on the basis of following.
- Emoluments
 - Appointments
 - Warrant of Precedence
 - Removal
- a) i & ii only b) i & iii only c) i, ii & iii only d) ii, iii & iv only
67. Regarding development of cooperatives, read the following statements: Which of the following statements is / are correct?
- It is a fundamental right to form a Cooperatives.
 - It is Directive Principle of State Policy to develop Cooperatives.
 - Cooperatives make up the part of the Indian Constitution.
 - 96th Constitutional Amendment Act brought all the provisions made above.
- a) i & ii only b) i, ii & iv are correct
c) i, ii & iii are correct d) i, ii, iii & iv are correct
68. Which one of the following is not a treatise on state craft?
- Arthasashtra of Kautilya
 - Nitivakymrita of Samdeva Suri
 - Amuktamalyada of Krishna Devraya
 - Megasthenis Indica

69. 'Theravali' refers to which of the following:
- A sub-sect of Jainism which avoided idol-worship.
 - Code of conduct prescribed for Jaina monks.
 - Prayer book of Jainas.
 - A section of Jaina Kalpasutras containing a list of ganas & their heads.
70. Which of the following musical instruments is not used in Hindustani style of music?
- Mridangam
 - Tabla
 - Tanpura
 - Santoor
- i only
 - i & iv only
 - ii & iii only
 - i & iii only
71. Which of the following is/ are the features of Kangra school of painting?
- It depicts Verdant greenery & Varied foliage
 - Multiple shades of green are used
 - Kangra Arts Promotion society is working for its promotion as its on the verge of extinction today.
- Only i & ii
 - Only ii & iii
 - Only i & iii
 - All the above
72. In which of the following countries, has maximum damage to the forests been caused by acid rain?
- Spain
 - Netherlands
 - Poland
 - Italy
73. Consider the following statements:
- The Taiga biome stretches across large parts of Canada, Europe and Asia.
 - Taiga is the largest biome in the world.
 - A lot of coniferous trees grow in the Taiga.
- Which of the statements given above are correct?
- 1 and 2
 - 2 and 3
 - 1 and 3
 - 1, 2 and 3
74. Which one of the following areas is dominant in hunting and gathering?
- Hot desert
 - Cold desert
 - Tropical forest
 - Temperate grassland
75. The longest inland waterways in the world is
- Mississippi river system
 - The Great Lakes
 - St. Lawrence
 - River Rhine
76. Which one of the following statements is correct?
- The mountains of the Peninsular India are about 40 million years old
 - The Eastern Ghats extend as a continuous range for a distance of about 1600 km
 - The Western Ghats consist of a series of discontinuous hills with no structural continuity
 - The Siwalik Ranges have hogback appearance

77. Consider the following statements about the soils of India:

1. High temperature during most of the year retards formation of humus.
2. Soils which have humus require regular application of chemical fertilizers to remove nitrogen deficiency.
3. Titanium salts in basalt impart black colour to the soils of the Indian plateau.
4. Red soils are confined to the peripheral areas of the Indian plateau.

Which of the statements given above are correct?

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

78. UN Decade of Education for Sustainable Development is

- a) 2000 – 2009 b) 2005 – 2014 c) 2010 – 2019 d) 2020 – 2031

79. **Assertion (A):** Shade loving species show better natural regeneration under highly disturbed condition.

Reason (R): Heliophilic species needs more exposure to light for better natural regeneration. In the context of the two statements, which one of the following is correct?

- a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- c) (A) is true, but (R) is false.
- d) (A) is false, but (R) is true.

80. Predatory strategy followed by an alligator for hunting is

- a) Chase b) Stalk c) Ambush d) Camouflage

81. Indian Microwave Remote Sensing Satellite is

- a) RISAT b) Resourcesat c) IRS d) Bhaskara

82. In the debate on net neutrality in India today 'Zero rating' means

- i) startups which are not rated by credit rating agencies
 - ii) consumers don't have to pay to the internet service providers when they visit certain sites
 - iii) Consumers don't have to pay when they have to visit government sites
- a) i & ii only b) i & iii only c) i only d) ii only

83. Primary deficit in budget of government of India in any given financial years indicates the following:

- i) Spending on infrastructure
 - ii) Spending on welfare
 - iii) State of current government finance
 - iv) Historical borrowing
- a) i & ii only b) ii & iii only c) iii only d) iv only

84. International Finance Corporation, a member of world bank group recently issued a masala bond to the international investors. The subscribers in dollar are promised a certain interest rate. They buy the bond with certain dollars and those dollars are fully protected irrespective of the exchange rate fluctuations. In these context read the following statements and answer which ones among them is correct:

- a) IFC takes the exchange rate risks.
- b) The bond purchasers takes the exchange risks.
- c) Both takes the exchange rate risks.
- d) Neither takes the exchange rates risks.

85. Monetary policy transmission involves the following:

Read the following statements and answers the correct ones.

- i) When Reserve Bank of India (RBI) changes the policy rates, the commercial banks also must follow the RBI.
 - ii) When Government's Fiscal deficit changes, RBI should change its policy rates.
 - iii) When the rate of inflation on Consumer Price index changes, RBI should change the policy rates.
 - iv) When financial Savings in India increase or decrease, RBI should change its policy rates.
- a) i & ii only b) i only c) ii only d) iii & iv only

86. From the States Legislative Assembly four (04) members to Rajya Sabha are being elected, in a given year. How many votes are there for elected member of the State Legislative Assembly?

- a) 1 b) 4
c) 4 transferable votes d) 1 transferable vote

87. 'Land Acquisition' is a subject in the Concurrent List presently, If the subject has to be shifted to 'State List' or the 'Union List'. Following are the necessary steps in the procedure. Answer the correct ones:

- i) A constitution amendment Bill needs to be introduced in the Rajya Sabha, not the Lok Sabha.
 - ii) The President of India must recommend the introduction of bill in the Rajya Sabha.
 - iii) Two Thirds of the State Legislatures have to ratify the bill.
 - iv) After such ratification, the President shall accept the bill.
- a) i, ii & iii are correct b) ii, iii & iv are correct
c) all the above are correct d) none of the above are correct

88. Early literature of Jainas was written in which of the following languages?

- i) Sanskrit ii) Prakrit iii) Ardhamagadhi
- a) Only i & ii b) Only ii & iii c) Only i & iii d) All the above

89. Which of the following helped in fueling of Nationalist Movement in pre-independent India?

- i) Indian press & literature
 - ii) Indian contact with European countries
 - iii) Modern methods of transport & communication
 - iv) Racial discrimination by British
- a) i, ii & iii b) i, iii & iv c) ii, iii & iv d) All of the above

90. The famous historical 'Magna Carta' laid the first step towards which of the following:

- i) Parliamentary Democracy ii) Rule of law
 - iii) Rights of man iv) Liberty
- a) i & ii only b) ii, iii & iv c) i, ii & iv d) All of the above

91. What is 'Mucchangam' in Indian literature?

- a) Buddhist literature developed under the Satavahanas
- b) Compilation of the works of Krishna Devaraya
- c) Literature produced by all the three sangams combined
- d) A holy text associated with Lingayats of Karnataka

92. The temperature of Thiruvananthapuram is lower than that of Mumbai in May and higher than that of Mumbai in January, because
- a) Thiruvananthapuram has cold current and Mumbai is faced with warm current
 - b) Thiruvananthapuram has higher rainfall in summer and it is nearer to the equator
 - c) Thiruvananthapuram is on the windward side and Mumbai is on the leeward side
 - d) Thiruvananthapuram is thickly vegetated while Mumbai is not

93. Xerophytic vegetation is a characteristic feature of

- a) Chhotanagpur plateau
- b) Khasi hills
- c) Eastern Ghats
- d) Kuchchh

94. Match List – I (Forest Type) with List – II (Regions) and select the correct answer:

List – I

List – II

- | | |
|-----------------------|--|
| A. Tropical evergreen | 1. Chhotanagpur plateau, Siwaliks |
| B. Monsoon | 2. Shillong plateau, Sahyadris |
| C. Temperate | 3. West Bengal, Terai |
| D. Mangrove | 4. Eastern and Western Himalayas, Nilgiris |

- a) A-2, B-4, C-1, D-3
- b) A-3, B-1, C-4, D-2
- c) A-2, B-1, C-4, D-3
- d) A-3, B-4, C-1, D-2

95. Which one of the following is the junction point of the Eastern Ghats and Western Ghats?

- a) Javadi Hills
- b) Anaimalai Hills
- c) Nilgiri Hills
- d) Shevaroy Hills

96. Match List – I with List – II and select the correct answer using the codes given below the lists:

List – I

List – II

(Biosphere Reserves)

(States)

- | | |
|-------------------|----------------|
| A. Manas | 1. Meghalaya |
| B. Nokrek | 2. Assam |
| C. Gulf of Mannar | 3. Uttaranchal |
| D. Nanda Devi | 4. Tamilnadu |

- a) A-2, B-3, C-4, D-1
- b) A-4, B-1, C-2, D-3
- c) A-2, B-1, C-4, D-3
- d) A-4, B-3, C-2, D-1

97. Ecolabels are indicators of

- i) Acceptable level of environmental impact of a product.
- ii) Environmental performance of a product.
- iii) Claims of environmental friendliness of a product.

Choose the correct answer from the codes given below:

- a) i, ii, iii
- b) i, ii only
- c) i only
- d) ii only

98. Biennial assessment of forest cover in India is done by
- Indian Institute of Remote Sensing, Dehradun
 - Forest Research Institute, Dehradun
 - Indian Institute of Forest Management, Bhopal
 - Forest Survey of India, Dehradun
99. As per colour coding of plastic bags for biomedical wastes, match the List – I with List – II and choose the correct answer from the codes given below:
- | List – I
(Colour Code) | List – II
(Option for disposal) |
|----------------------------------|---|
| A. Yellow plastic bags | 1. Disposal in secured land fills |
| B. Black plastic bags | 2. Incineration and deep burials |
| C. Blue/White plastic bags | 3. Autoclaving and chemical treatment |
| D. Red plastic bags | 4. Microwave treatments and destruction |
| a) A-4, B-3, C-2, D-1 | b) A-1, B-4, C-3, D-2 |
| c) A-2, B-1, C-4, D-3 | d) A-3, B-2, C-1, D-4 |
100. Basel convention is related to
- Control of ozone depletion.
 - Control of water pollution.
 - Transboundary movement of hazardous wastes and their disposal.
 - Environmental auditing.

ANSWERS WITH EXPLANATIONS

1-d; 2-a; 3-c; 4-c; 5-c; 6-d; 7-c.

- 8-d;** Nirmal, Cherial are from Telangana, Shrikalahasti is from Andhra Pradesh while Tanjavur is from Tamilnadu.
- 9-b;** Woods dispatch recommended to encourage private participation in the field of education. The focus was to westernize education. One university was established in each of Calcutta, Bombay & Madras on the model of London University. Also the focus was on technical education.
- 10-a;** Major advantages which British had were commercial, naval superiority & their victory in European wars. British also had 3 important ports – Calcutta, Bombay & Madras, while French only had one Pondicherry.
- 11-d.**
- 12-c;** The Alps (continental – continental plate collision).
- ★ The Himalaya (Continental – continental plate collision, Eurasian and Indian plate).
 - ★ The Rockies (Oceanic – continental plate collision, Pacific and American plate).
 - ★ The Caucasus Mountains (Continental – continental plate collision).
- 13-d;** Jet streams develop best in winters because of greater thermal contrasts.

- ★ Jet streams, generally, develop a wavy pattern called Rossby waves.
- ★ Jet streams have been found, to influence earth's surface weather phenomena (temperate cyclone, monsoon, etc).
- ★ The monsoon of South Asia is largely affected and controlled by Jet streams.

14-c; In the idealized tricellular circulations, the sequence of pressure conditions from equator to poles is (i) Equatorial low, (ii) Subtropical high, (iii) Subpolar low, (iv) Polar high.

- ★ The equatorial low pressure belt is located on either side of the geographical equator in a zone extending between 5°N and 5°S latitudes but this zone is not stationary because there is seasonal shift of belt.
- ★ Subtropical high pressure belt extends between the latitude of 25° – 35° in both the hemisphere. It is important to note that this high pressure belt is not thermally induced because this zone besides two to three winter months receives fairly high temperature throughout the year. Each polar low pressure belt is located between 60° – 65° latitudes in both the hemisphere.
- ★ Polar high pressure belt persists at the poles throughout the year because of prevalence of very low temperature below freezing point all the year round.

15-d; The declination of the Sun in a year's time is $23\frac{1}{2}^{\circ} + 23\frac{1}{2}^{\circ}$ i.e. 47°. The two tropics (of Cancer and Capricorn) represent the farthest limits of the vertical rays of the Sun. As the angle of Sun's rays decreases pole ward; the amount of insolation received also decreases in that direction.

16-d; Temperature inversion: Upward reversal of the normal environmental temperature lapse rate. So, that the air temperature increases upward. The following types on the basis of relative heights from the earth's surface at which it occurs and the type of air circulation:

1. Non - advectional inversion
 - i) Ground or surface inversion or radiation inversion
 - ii) Upper air inversion
2. Advectional inversion
 - i) Frontal inversion or cyclonic inversion
 - ii) Valley inversion due to vertical air movement
 - iii) Surface inversion due to horizontal air movement
3. Mechanical inversion
 - i) Subsidence inversion
 - ii) Turbulence and convective inversion

The ground surface inversion occurs under the following conditions:

- a) Long winter nights, so that the loss of heat by terrestrial radiation from the ground surface during night may exceed the amount of insolation received from the Sun through incoming shortwave electro-magnetic radiation waves and thus the ground surface becomes too cold.
- b) Cloudless and clear sky, so that the loss of heat through terrestrial radiation proceeds more rapidly without any obstruction.
- c) Presence of dry air near the ground surface so that it may not absorb much heat radiated from the earth's surface.

d) Slow movement of air, so that there is no transfer and mixing of heat in the lower layers of the atmosphere.

17-a; 18-c; 19-a; 20-d; 21-a; 22-c; 23-a; 24-c; 25-d; 26-a; 27-d

28-c; Land revenue was the chief source of state's income while customs duty in foreign trade was another source.

29-d; Pulakesin II had over 100 ships in his navy. Chalukyas were a major naval power.

30-c; Permanent Settlement / Zamindari System

- ★ Zamindars as the permanent owners of land
- ★ Total revenue 89% paid to state, 11% kept with themselves.
- ★ They were left independent in the internal affairs of their respective districts & hence the system of 'Patta', mentioning the area of the land to farmers was not enforced properly.

31-a;

32-a; Cirrus: 'Cirrus' in latin means a shape similar to a lock of curly hair.

- ★ Stratus: 'Stratus' in latin refers to a sheet - like formations.
- ★ Nimbus: 'Nimbus' refers to rain-bearing cloud.
- ★ Cumulus: 'Cumulus' in latin refers to a heap or a pile shape and this cloud grows vertically.

33-c; The source of tropical cyclones occurrence lies between 5° to 30° latitudes in both the hemispheres. They never form exactly over the equator.

- ★ A tropical Hurricane is nearly circular vortex averting 500 to 600 km in diameter. The diameter of small sized Tornado violent storm varies from 150 to 600 meters.
- ★ Hurricanes form only over oceans having a high surface temperature (27°C). Whenever a tropical cyclone moves on to land, much of its severity is reduced simply because its source of moisture is cut off. In other words, no energy is available on land to maintain a cyclone. The weakening of the Hurricane over land is also the result of increased friction.

34-a; The mediterranean climate is characterised by a dry summer, a mild humid winter and abundant sunshine, about 90 percent of the possible sunshine in summer and 50% to 60% even during the rainy winter season.

- ★ This happens because of shift of pressure belts as a result of which westerlies bring winter rain. Mediterranean climates are found 30° and 40°N and latitudes on the western sides of the continents. These climates are found in five regions of the world; The borderlands of the Mediterranean Sea (North of the Mediterranean Sea from Portugal to Turkey and beyond the Iranian Highlands; the southern borderland includes Morocco, northern Algeria, and Tunisia and north of Bengasi in Libya), the Central and California coast in the United States of America; Central Chile; the Capetown area of South Africa; and Southern and South-western coasts of Australia.

35-a; The temperature of the atmosphere of a particular place near the ground surface depends on the amount of insolation received at that place. Since the amount of insolation received by the ground surface decreases poleward from the equator i.e. from low latitudes towards high latitudes because the Sun's rays become more and more oblique (slanting) poleward and hence air temperature also decreases poleward.

★ It may be noted that though Sun's rays are almost vertical over the equator throughout the year but there is no maximum temperature on it rather maximum temperature is recorded along 20°N latitude in July because major portion of insolation is reflected by clouds and sizeable amount of heat is lost in evaporation in the low latitude zone (equatorial zone).

36-a; Dalmatian Coast is the longitudinal coast where mountains run parallel (on concordant) to the coast. The name comes from the coast of Dalmatia (former Yugoslavia), along the Adriatic Sea.

37-d; Coral reefs and atolls are significant sub-marine features. These are formed due to accumulation and compaction of skeletons of lime secreting organisms known as coral polyps.

38-d; 39-c; 40-b; 41-d; 42-a; 43-d; 44-d; 45-c; 46-a; 47-a

48-d; All these initiatives were the inalienable parts of Gandhian theories of Swaraj, Trusteeship & Oceanic Circles.

49-b; It was associated with the Malabar uprising also called the Noplah/ Mappila revolt. Conference took place in 1921.

★ Nellikuth in Manjeri was the birth place of rebel leader Ali Musliyar.

50-c; Mansab – Rank, Mansabdar – Rank Holder. It was a system of giving ranks to Mughal officials. There were 33 categories of Mansabdars.

51-b; They are also referred to as the fifth Veda.

52-a; Gulf Stream is a warm current, moving from low latitudes to higher latitudes.

★ West Wind Drift (Cold), a strong ocean current known as west wind drift flows from west to east under the influence of the westerlies in the zone of 40° - 50° S latitudes (South Pacific; South Atlantic and Indian Ocean). This current becomes much stronger because of immense volume of water mass and high velocity winds called as roaring forties and thus the current flows with great velocity.

★ Peru Current (cold): The cold current flowing along the western coast of South America in the eastern Pacific Ocean from south to north is called Peru Current or Humboldt Current. West Australian current is a warm current in the Indian Ocean.

53-d; The position of the sun, the moon and the earth in a straight line is called Syzygy. When the sun, the moon and the earth are in sequential order in a straight line, in other words, when the sun and moon are in one side of earth, the position is called Conjunction (the situation of solar eclipse).

★ When the position of the earth is in between the sun and moon, this is called opposition. On the other hand, when sun, the earth and the moon are in a position of a right angle, this position is called quadrature. The nearest position of the moon with the earth is called perigee when the distance between them is 3,56,000 km. The farthest position of the moon with the earth is apogee (4,07,000 km).

54-a; On an average, salinity decreases from equator towards the poles.

★ It may be mentioned that the highest salinity is seldom recorded near the equator; though this zone records high temperature and evaporation but high rainfall reduces the relative portion of salt. Thus, the equator accounts for only 35% salinity. The highest salinity is observed between 20° – 40° N 36% because this zone is characterized by high temperature, high evaporation but significantly low rainfall.

55-b; When rain-forest is cleared, the humus formation almost ceases, thereby depleting soils critical nutrients. High rainfall also results into leaching of soil nutrient in the absence of tree cover.

56-b; Temperature variation is universally important environmental factor as each species has its own minimum, maximum and optimum temperatures for life.

- ★ Condition of Sunlight determines the source of energy for ecosystem. Besides most organisms need large amount of water to survive so wind has the least effect.

57-d; A tundra consists of plains characterised by snow ice and frozen soil for most part of the year.

- ★ Temperature of the warmest month does rise above 0°C but never above 10°C. As such the ground may be free from snow, but for a short period. Growing period (less than 50 days) is only the short summer season.

58-d; 59-c; 60-b; 61-d; 62-a; 63-b; 64-a; 65-b; 66-b; 67-c

68-c; Amuktamalyada – One who wears & gives away garlands. It is considered a masterpiece in Telugu literature.

- ★ It tells the story of a girl who used to wear the garlands intended for Lord Ranganatha, before they were offered to the deity.

69-d; Kalpasutra is a Jaina text containing biographies of the Jain tirthankaras, most notably Mahavira & Parsvanath. Bhadrabahu I is considered as the author of this text.

70-a; Mridangam is a percussion instrument used in Carnatic music.

71-d

72-b; In Netherlands about 54% forests has been damaged by acid rain.

73-c; The Taiga biome stretches across large parts of Canada, Europe and Asia. A lot of coniferous trees grow in the Taiga. Taiga is not the largest biome in the World.

74-c; Primitive activities like hunting and gathering sustained human beings for more than 95% of their existence on the earth. The hunting-gathering people successfully colonised the tropical rainforests.

- ★ Present day hunters-gatherers are confined to a few pockets in Australia, Africa, Asia, North America and South America. The Arctic Inuit; Pygmies and Kalahari San of Africa; Aboriginal Australians such as Pintupi; Paliyan of South India and Semang of Malaysia are some examples of the foragers.

75-a; The Mississippi Waterway: The Mississippi-Ohio waterway connects the interior part of the USA with the Gulf of Mexico in the South. Large steamer can go through this route upto Minneapolis.

- ★ The Great Lakes – St. Lawrence Waterway: It is an unique water way in the northern part of North America. The ports located on this route have developed just like ocean ports with all facilities.
- ★ Rhine Waterway: It is the world's most heavily trafficked waterway. Rotterdam is located at its mouth in the Netherlands.

76-d; The Siwalik comprises range of the Himalaya and is also known as Outer Himalayas.

- ★ With its southern steep slopes, it assumes hogback appearance. Flat scarps, anticlinal crests and synclinal valleys are the chief characteristic feature of this range.

77-b; The decayed leaf material adds much needed humus to soil thereby increasing its fertility.

- ★ Humus itself decomposes in process known as minerolisation which releases nitrogenous compounds into the soil. So, the soils which have humus should not face nitrogen deficiency.

78-b; 79-d; 80-c; 81-a; 82-b; 83-c; 84-a; 85-b; 86-d; 87-d

88-b; Early Jaina writers discarded Sanskrit as the language of Brahmans & adopted Prakrit & Ardhamagadhi, the languages of common people.

89-d;

90-a; UK celebrated 800 years of Magna Carta signing on 15th June 2015. It was a document of promises between King Jon & his subjects about governing England with customs & feudal law. Rights & Liberty were the concepts developed much later.

- 91-c; I) Sangam – Madurai
II) Sangam – Kapadapuram
III) Sangam – Mudathirumran

★ These Sangams flourished under the royal patronage of Pandyas.

92-b; Thiruvananthpuram has lower temperature than Mumbai in May because of higher rainfall in summer. Since it is nearer to equator it has higher temperature than that of Mumbai in January.

93-d; Xerophytic Vegetation are found in north-western parts of the country including Rajasthan, South-western Punjab, Western Haryana, Kuchchh and neighbouring parts of Saurashtra.

- 94-c; A. Tropical evergreen 2. Shillong plateau, Sahyadris
B. Monsoon 1. Chhotanagpur plateau, Siwaliks
C. Temperate 4. Eastern and Western Himalayas, Nilgiris
D. Mangrove 3. West Bengal, Terai

95-c; The Nilgiri, far south in Tamilnadu is the meeting place of the Western Ghats, the Eastern Ghats and the Southern hills, rising abruptly from the surrounding areas, it has the highest peak of Dodabeta (2,637 m) and Udhagamandalam (Ooty) hill station.

- 96-c; A. Manas 2. Assam
B. Nokrek 1. Meghalaya
C. Gulf of Mannar 4. Tamilnadu
D. Nanda Devi 3. Uttaranchal

97-b; 98-d; 99-c; 100-c.

This Model Paper is prepared by the faculty of Sriram's IAS, New Delhi.