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TEST BOOKLET  
GENERAL STUDIES  
Paper-I

A

Time Allowed : Two Hours

Maximum Marks : 150

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INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION YOU SHOULD CHECK THAT THE TEST BOOKLET *DOES NOT* HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC, IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. **Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series A, B, C or D carefully and without any omission or discrepancy at the appropriate place in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.**
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside . *DO NOT* write *anything else* on the Test Booklet.
4. This Test Booklet contains **150** items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.
5. You have to mark all your responses *ONLY* on the separate Answer Sheet provided.
6. **All** items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the invigilator only the *Answer Sheet*. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong Answers :**  
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.  
(i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third** of the marks assigned to that question will be deducted as penalty.  
(ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.  
(iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

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UPSC Civil Services Preliminary Exam 2002 Exam

**Q1 A complete cycle of a traffic light takes 60 seconds. During each cycle the light is green for 25 second, yellow for 5 second and red for 30 second. At a randomly chosen time, the probability that the light will not be green is**

- (a)  $1/3$**
- (b)  $1/4$**
- (c)  $5/12$**
- (d)  $7/12$**

**Q2 The last opportunity to avoid the partition of India was lost with the rejection of**

- (a) Cripps Mission**
- (b) Rajagopalachari Formula**
- (c) Cabinet Mission**
- (d) Wavell Plan**

**Q3 With reference to India, which one the following statements is not correct?**

- (a) About one-third of the area of the country records more than 750 millimeters of annual rainfall**
- (b) The dominant source of irrigation in the country is wells**
- (c) Alluvial soil is the predominant type of soil in the northern plains of the country**
- (d) The mountain areas accounts for about thirty percent of the surface area of the country**

**Q4 A solid cube just gets completely immersed in water when a 0.2 kg mass is placed on it. If the mass is removed, the cube is 2 cm about the water level. What is the length of each side of the cube?**

- (a) 12 cm**
- (b) 10 cm**
- (c) 8 cm**
- (d) 6 cm**

**Q5 The historian Barani refused to consider the state in India under Delhi Sultans as truly Islamic because**

- (a) the majority of the population did not follow Islam**
- (b) the Muslims theologians were often disregarded**
- (c) the Sultan supplemented the Muslim law by framing his own regulations**
- (d) religious freedom was accorded to non-Muslims**

**Q6 Who among the following won the men's singles title at the World Badminton Championship in the year 2001?**

- (a) Gopichand**
- (b) Hendrawn**
- (c) Ji Xin Peng**
- (d) Peter Gade**

**Q7** With reference to the latest developments in stem cell research, consider the following statements:

- 1.** The only source of human stem cells are the embryos at blastocyst stage
- 2.** The stem cells can be derived a without causing destruction to blastocysts
- 3.** The stem cells can regenerate themselves in vitro virtually forever
- 4.** Indian research centres also created a few cell lines which can be developed into many types of tissues

Which of these statements are correct?

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

**Q8** In the year 2001, NASA launched a spacecraft to Mars named

- (a)** Mars Climate Orbiter
- (b)** Mars Global Surveyor
- (c)** Mars Odyssey
- (d)** Mars Polar Ladder

**Q9** Consider the following climatic and geographical phenomena:

- 1.** Condensation
- 2.** High temperature and humidity
- 3.** Orography
- 4.** Vertical wind

Thunder Cloud development is due to which of these phenomena?

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

**Q10** A trader fixed the price of an article in such a way that by giving a rebate of 10% on the price fixed he made a profit of 15%. If the cost of the article is Rs 72, the price fixed on it is

- (a)** Rs 82.80
- (b)** Rs 90.00
- (c)** Rs 92.00
- (d)** Rs 97.80

**Q11** Among living organisms, which one of the following is the most responsible factor for bringing about the origin of a new species?

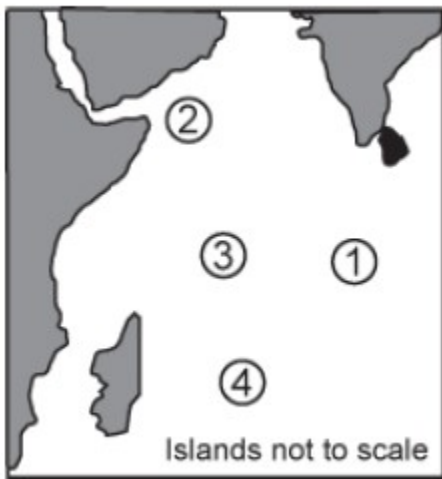
- (a)** Isolation
- (b)** Mutation

- (c) Natural Selection
- (d) Sexual Reproduction

Q12 For short-term climate prediction, which one of the following events, detected in the last decade, is associated with occasional weak monsoon rains in the India subcontinent?

- (a) La Nina
- (b) Movement of Jet Streams
- (c) El Nino and Southern Oscillations
- (d) Greenhouse effects on global level

Q13 In the map given below, four islands of Indian Ocean region i.e. (A) Seychelles, (B) Chagos, (C) Mauritius and (D) Socatra are marked as 1, 2, 3 and 4. Match them and select the correct answer from the codes given below.



Codes:

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

Q14 "World Development Report" is an annual publication of

- (a) United Nations Development Programme
- (b) International Bank of Reconstruction and Development
- (c) World Trade Organisation
- (d) International Monetary Fund

**Q15 Match List I (Ancient site) with List II (Archaeological finding) and select the correct answer using the codes given below the lists :**

**List I - List II**

**(Ancient site) - (Archaeological finding)**

**A. Lothal - 1. Ploughed field**

**B. Kalibangan - 2. Deckyard**

**C. Dholavira - 3. Terracotta replica of a plough**

**D. Banawali - 4. An inscription comprising ten large sized signs of the Harappan script**

**Codes:**

**A B C D**

**(a) 1 2 3 4**

**(b) 2 1 4 3**

**(c) 1 2 4 3**

**(d) 2 1 3 4**

**Q16 Which one of the following statements is not correct?**

**(a) The statue of Gomateshwara at Sravanabelagola represents the last Tirthankara of Jains**

**(b) India's largest Buddhist monastery is in Arunachal Pradesh**

**(c) The Khajuraho temples were built under Chandela Kings**

**(d) The Hoysalesvara temple is dedicated to Siva**

**Q17 Open stunted forests with bushes and small trees having long roots and sharp thorns or spines are commonly found in**

**(a) Eastern Orissa**

**(b) North-Eastern Tamil Nadu**

**(c) Siwaliks an Terai region**

**(d) Western Andhra Pradesh**

**Q18 Match List I (Article of Indian Constitution) with List II (Provisions) and select the correct answer using the codes given below the lists:**

**List I - List II**

**(Article of Indian Constitution) - (Provisions)**

**A. Article 16(2) - 1. No person shall be deprived of his property save by the authority of law**

**B. Article 29(2) - 2. No person can be discriminated against in the matter of public appointment on the ground of race, religion or caste**

**C. Article 30(1) - 3. All minorities whether based on religion or language shall have the fundamental right to establish and administer educational institutions of their choice**

**D. Article 31(1) - 4. No citizen shall be denied admission into any educational institution maintained by the State, or receiving State aid, on grounds of religion, race, caste, language or any of them.**

**Codes:**

**A B C D**

**(a) 2 4 3 1**

**(b) 3 1 2 4**

**(c) 2 1 3 4**

(d) 3 4 2 1

**Q19** In ancient Indian Buddhist monasteries, a ceremony called Pavarana used to be held. It was the  
(a) occasion to elect the Sanghaparinayaka and two speakers one on Dhamma and the other on Vinaya

(b) confession by monks of their offences committed during their stay in the monasteries during the rainy season

(c) ceremony of initiation of new person into the Buddhist Sangha in which the head is shaved and when yellow robes are offered

(d) gathering of Buddhist monks on the next day to the full moon day of Ashadha when they take up affixed abode for the next four months or rainy season

**Q20** Consider the volumes of the following:

1. A parallelepiped of length 5 cm, breadth 3 cm and height 4 cm

2. A cube of each side 4 cm

3. A cylinder of radius 3 cm and length 3 cm

4. A sphere of radius 3 cm

The volumes of these in the decreasing order is

(a) I, III, II, IV

(b) IV, II, III, I

(c) I, II, III, IV

(d) IV, III, II, I

**Q21** Consider the following statements:

The Draft Electricity Bill, 2001 seeks to replace

1. Indian Electricity Act, 1910

2. Electricity (Supply) Act, 1948

3. Electricity Regulatory Commission Act, 1998

4. State Electricity Boards

Which of these statements are correct?

(a) 1, 2 and 3

(b) 2, 3 and 4

(c) 1, 2 and 4

(d) 1, 3 and 4

**Q22** Consider the following statements:

1. The World Intellectual Property Organisation (WIPO) is a specialised agency of United Nations System of Organisations

2. WIPO has its headquarters at Rome

3. The Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement is binding on all WTO members

4. Least developed country members of WTO are not required to apply the provisions of TRIPS Agreements for a period of 20 years from the general date of application of the Agreement

Which of these statements are correct?

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

**Q23 India has the maximum volume of foreign trade with**

- (a) USA
- (b) Japan
- (c) Germany
- (d) UAE

**Q24 Which one of the following is not a lagoon?**

- (a) Ashtamudi lake
- (b) Chilka lake
- (c) Periyar lake
- (d) Pulicat lake

**Q25 Ticks and mites are actually**

- (a) Arachnids
- (b) Crustaceans
- (c) Insects
- (d) Myriapods

**Q26 With reference to the blood in a normal person, which one of the following statements is correct?**

- (a) Compared to arteries, veins are less numerous and hold less of the body's blood at any given time
- (b) Blood cells constitute about 70 per cent of the total volume of the blood
- (c) White Blood Cells (WBC) are made by lymph nodes only
- (d) The blood has more platelets than WBC

**Q 27 Which one of the following statements is correct with reference to our solar system?**

- (a) The Earth is the densest of all the planets in our solar system
- (b) The predominant element in the composition of Earth is silicon
- (c) The Sun contains 75 per cent of the mass of the solar system
- (d) The diameter of the Sun is 190 times that of the Earth

**Q28 Which one of the following statements is not correct?**

- (a) The boiling point of an aqueous solution is higher than that of pure water
- (b) Addition of solutes to a solution causes an increase in its water potential
- (c) The vapour pressure of the water in a solution is lower than that of pure water
- (d) When a solution is separated from water by a semi permeable membrane, water movement can be prevented by applying pressure to the solution

**Q29 With reference to Indian agriculture, which one of the following statements is correct?**

- (a) About 90 per cent of the area under pulses in India is rainfed.

- (b) The share of pulses in the gross cropped area at the national level has double in the last two decades
- (c) India accounts for about 15 per cent of the total area under rice in the world
- (d) Rice occupies about 34 per cent of the gross cropped area of India

**Q30** With reference to Sufism in Indian history, consider the following statements:

1. Shaikh Ahmad Sarhandi was a contemporary of Ibrahim Lodi
2. Shaikh Nasiruddin Chirag-i-Dehlavi was a disciple of Shaikh Nizamuddin Auliya
3. Aurangzeb was contemporary of Shaikh Salim Chisti
4. The Qadiri order of Sufis was first introduced in India by Shaikh Niamtullah and Makhdum Muhammad Jilani

Which of these statements are correct?

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

**Q31** The salaries and allowances of the Judges of the High Court are charged do the

- (a) Consolidated Fund of India
- (b) Consolidated Fund of the State
- (c) Contingency Fund of India
- (d) Contingency Fund of the State

**Q32** Consider the following plants:

1. Bougainvillea
2. Carnations
3. Cocoa
4. Grapes

Which of these plants are propagated by stem cuttings?

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

**Q33** The members of the Constituent Assembly which drafted the Constitution of India were

- (a) nominated by the British Parliament
- (b) nominated by the Governor General
- (c) elected by the Legislative Assemblies of various provinces
- (d) elected by the Indian National Congress and Muslim League

**Q34** A train of length 150 metres, moving at a speed of 90 km/hr can cross a 200 metre bridge in

- (a) 8 seconds
- (b) 14 seconds
- (c) 6 seconds



(d) 15 seconds

**Q35** The ancient Indian play *Mudrarakshasa* of Visakhadutt has its subject on

- (a) a conflict between Gods and Demons of ancient Hindu lore
- (b) a romantic story of an Aryan prince and a tribal woman
- (c) the story of the power struggle between two Aryan tribes
- (d) the court intrigues at the time of Chandragupta Maurya

**Q36** India's external debt increased from US \$98,158 million as at the end of March 2000 to US \$100,225 million as at the end of March 2001 due to increase in

- (a) multilateral and bilateral debt
- (b) rupee debt
- (c) commercial borrowings and NRI deposits
- (d) borrowing from International Monetary Fund

**Q37** With reference to the Indian economy, consider the following activities:

1. Agriculture, Forestry and Fishing
2. Manufacturing
3. Trade, Hotels Transport and Communication
4. Financing, Insurance, Real Estate and Business services

The decreasing order of the contribution of these sectors to the Gross Domestic Product (GDP) at factor cost at constant prices (2000-01) is

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

**Q38** Who among the following set a new national record in the women's Pole vault event in the 7th edition of Senior Federation Cup held in Karnataka in the year 2001 ?

- (a) G G Pramila
- (b) Jyothna Deka
- (c) Karamjeet Kaur
- (d) Manisha Dey

**Q39** The main reason for unrest and violence in Zimbabwe in recent years is due to

- (a) conflict between different native ethnic groups
- (b) prolonged crisis over land reforms
- (c) economic crisis
- (d) power struggle between political groups of white European settlers and native black community

**Q40 Match List I (Artist) with List II (Art) and select the correct answer using the codes given below the lists:**

**List I - List II**

**(Artist) - (Art)**

- A. Hiren Bhattacharya - 1. Bharatanatyam dance**
- B. Malini Rajurkar - 2. Hindustani vocal music**
- C. Pratibha Prahlaad - 3. Kuchipudi dance**
- D. Vempati Chinna Satyam - 4. Puppetry**

**Codes:**

**A B C D**

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

**Q41 Consider the following natural phenomena :**

- 1. Terrestrial heating**
- 2. Reflection of light**
- 3. Refraction of light**
- 4. Diffraction of light**

**Due to which of these phenomena is mirage formed ?**

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

**Q42 HINDALCO, an aluminium factory located at Renukut owes its site basically to**

- (a) proximity of raw materials**
- (b) abundant supply of power**
- (c) efficient transport network**
- (d) proximity to the market**

**Q43 In the context of the organic evolution, the loss of limbs of snakes is explained by the phenomenon of**

- (a) use and disuse of organs**
- (b) adaptation to living in burrows**
- (c) natural selection**
- (d) inheritance of acquired characters**

**Q44 The purpose of the inclusion of Directive Principles of State Policy in the Indian Constitution is to establish :**

- (a) political democracy**
- (b) social democracy**
- (c) Gandhian democracy**

(d) social and economic democracy

**Q45 Consider the following statements:**

The objectives of the National Renewal Funds set up in February 1992 were

1. to give training and counselling for workers affected by retrenchment or VRS.
2. redeployment of workers

Which of these statements is/are correct?

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

**Q46 Which one of the following committees recommended the abolition of reservation of items for the small scale sector in industry?**

- (a) Abid Hussain Committee
- (b) Narasimham Committee
- (c) Nayak Committee
- (d) Rakesh Mohan Committee

**Q47 India's population growth during the 29th century can be classified into four distinct phases. Match List I (Period) with List II (Phase) and select the correct answer using the using the codes given below the lists:**

List I - List II

(Period) - (Phase)

- A. 1901-21 - 1. Steady growth
- B. 1921-51 - 2. Rapid high growth
- C. 1951-81 - 3. Stagnant growth
- D. 1981-2001 - 4. High growth with definite signs of slowdown

Codes:

A B C D

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

**Q48 Who was the first Indian actress to receive the Padma Shri Award ?**

- (a) Samita Patil
- (b) Nargis Dutt
- (c) Meena Kumari
- (d) Madhubala

**Q49 With reference to medieval Indian rulers, which one of the following statements is correct ?**

- (a) Alauddin Khalji first set up a separate ariz's department
- (b) Balban introduced the branding system of horses of military
- (c) Muhammad bin Tughlaq was succeeded by his uncle to the Delhi throne
- (d) Firuz Tughlaq set up a separate department of slaves

**Q50 Consider the following statements:**

**The objectives of the National Renewal Funds set up in February 1992 were**

- 1. to give training and counselling for workers affected by retrenchment or VRS.**
- 2. redeployment of workers**

**Which of these statements is/are correct?**

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

**Q51 The motive behind Shahjahan's Balkh campaign was to**

- (a) secure a friendly ruler in Balkh and Badakshan which bordered Kabul**
- (b) conquer Samarqand and Farghana, the Mughal homelands**
- (c) fix the Mughal frontier on the 'scientific line', the Amu Daria**
- (d) expand the Mughal Empire beyond the sub-continent**

**Q52 Consider the following high yielding varieties of crops in India :**

- 1. Arjun**
- 2. Jaya**
- 3. Padma**
- 4. Sonalika**

**Which of these are wheat ?**

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

**Q53 Which one of the following submitted in 1875 a petition to the House of Commons demanding India's direct representation in the British Parliament?**

- (a) The Deccan Association**
- (b) The Indian Association**
- (c) The Madras Mahajan Sabha**
- (d) The Poona Sarvajanik Sabha**

**Q54 The real intention of the British to include the princely states in the Federal Union proposed by the India Act of 1935 was to**

- (a) exercise more and direct political and administrative control over the princely states**
- (b) involve the princes actively in the administration of the colony**
- (c) finally effect the complete political and administrative take-over of all the princely states by the British**
- (d) use the princes to counter-balance the anti-imperialist doctrines of the nationalist leaders**

**Q55** When one gene controls two or more different characters simultaneously, the phenomenon is called

- (a) Apomixis
- (b) Pleiotropy
- (c) Polyploidy
- (d) Polyteny

**Q56** Sun's halo is produced by the refraction of light in

- (a) Water vapour, in Stratus clouds
- (b) Ice crystals in Cirro-Cumulus clouds
- (c) Ice crystals in Cirrus clouds
- (d) Dust particles in Stratus clouds

**Q57** Which one of the following Articles of the Directive Principles of State Policy deals with the promotion of international peace and security?

- (a) 51
- (b) 48 A
- (c) 43 A
- (d) 41

**Q58** Which one of the following rights was described by Dr B R Ambedkar as the heart and soul of the Constitution?

- (a) Right to freedom of religion
- (b) Right to property
- (c) Right to equality
- (d) Right to Constitutional remedies

**Q59** Which reference to the Wholesale Price Index (WPI), consider the following statements:

1. The new WPI series with base 1993-94 = 100 became effective from April 1998
2. In the new WPI series, became effective from 1 April 2000. Statements 2 and 3 are correct
3. The weight for electricity has increased in the new WPI series

Which of these statements are correct ?

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

**Q60** Match List I (Acts of Colonial Government of India) with List II (Provisions) and select the correct answer using the codes given below the lists:

List I - List II

(Acts of colonial government of India) - (Provisions)

A. Charter Act, 1813 - 1. Set up a Board of Control in Britain to fully regulate the east India Company's affairs in India

- B. Regulating Act - 2. Company's trade monopoly in India was ended  
C. Act of 1858 - 3. The power to govern was transferred from the East India Company to the British Crown  
D. Pitt's India Act - 4. The Company's directors were asked to present to the British government all correspondence and documents pertaining to the administration of the company

Codes:

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

Q61 Match List I (Mangrove ) with List II (State) and select the correct answer using the codes given below the lists:

List I - List II

(Mangrove) - (State)

- A. Achra Ratnagiri - 1. Karnataka  
B. Coondapur - 2. Kerala  
C. Pichavaram - 3. Andhra Pradesh  
D. Vembanad - 4. Maharashtra

5. Tamil Nadu

Codes:

- A B C D  
(a) 2 1 5 4  
(b) 4 5 3 2  
(c) 2 5 3 4  
(d) 4 1 5 2

Q62 Which one of the following Acts of British India strengthened the Viceroy's authority over his executive council by substituting "portfolio" or departmental system for corporate functioning?

- (a) Indian Council Act, 1861  
(b) Government of India Act, 1858  
(c) Indian Councils Act, 1892  
(d) Indian Councils Act, 1909

Q63 The age of a man is three times the sum of the ages of his two sons. Five years hence, his age will be doubled of the sum of the ages of his sons. The father's present age is

- (a) 40 years  
(b) 45 years  
(c) 50 years  
(d) 55 years

**Q64** The length of the longest pole that can be placed in a room 12 m long and 9 m wide and 8 m high is

- (a) 12 m
- (b) 14 m
- (c) 17 m
- (d) 21 m

**Q65** With reference to the human body consider the following statements:

1. The production of somatotropin goes up when a person exercises
2. Men's testes produce progesterone
3. Women's adrenal glands secrete testosterone
4. Stress causes the adrenals to release very less amount of cortisol than usual

Which of these statements are correct?

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

**Q66** In the year 2001, the Prime Minister announced a five-year excise duty holiday for industries in

- (a) cyclone prone coastal Andhra Pradesh
- (b) border states of North-East
- (c) earthquake ravaged Kutch district
- (d) recently formed states of Chhattisgarh and Jharkhand

**Q67** Consider the following statements with reference to India:

1. The Chief Election Commissioner and other Election Commissioners enjoy equal powers but receive unequal salaries
2. The Chief Election Commissioner is entitled to the same salary as is provided to a judge of the Supreme Court
3. The Chief Election Commissioner shall not be removed from his office except in like manner and on like grounds as a judge of the Supreme Court
4. The term of office of the Election Commissioner is five years from the date he assumes his office or till the day he attains the age of 62 years, whichever is earlier

Which of these statements are correct?

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

**Q68** In a company 60% of the employees are men. Of these 40% are drawing more than Rs 50,000 per year. If 36% of the total employees of the company draw more than Rs 50,000 per year, what is the percentage among women who are drawing less than Rs 50,000 per year?

- (a) 70
- (b) 60

- (c) 40
- (d) 30

**Q69 Consider the following statements:**

- 1. Light of longer wavelength is scattered much more than the light of shorter wavelength.**
- 2. The speed of visible light in water is 0.95 times and speed in vacuum.**
- 3. Radio waves are produced by rapidly oscillating electrical currents.**
- 4. To detect the over speeding vehicles, police use the Doppler effect of reflected short radio waves**

**Which of these statements are correct ?**

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

**Q70 Global capital-flows to developing countries increased significantly during the nineties. In view of the East Asian financial crisis and Latin American experience, which type of inflow is good for the host country?**

- (a) Commercial loans**
- (b) Foreign Direct Investment**
- (c) Foreign Portfolio Investment**
- (d) External Commercial Borrowings**

**Q71 In terms of value, which one of the following commodities accounted for the largest agricultural exports by India during the three year period from 1997- 1998 to 1999-2000?**

- (a) Cereals**
- (b) Marine products**
- (c) Spices**
- (d) Tea**

**Q72 In the year 2001, in which one of the following events of Women's Singles did Venus Williams defeat Serena Williams to win the title?**

- (a) Australian Open 2001**
- (b) French Open 2001**
- (c) Wimbledon 2001**
- (d) US Open 2001**

**Q73 The Consultative Committee of members of Parliament for Railway Zones is constituted by the**

- (a) President of India**
- (b) Ministry of Railways**
- (c) Ministry of Parliamentary Affairs**
- (d) Ministry of Transport**



**Q74 Which one of the following is monogamous?**

- (a) Wolf
- (b) Walrus
- (c) Seal
- (d) Deer

**Q75 Five Year Plan in India is finally approved by**

- (a) Union Cabinet
- (b) President on the advice of Prime Minister
- (c) Planning Commission
- (d) National Development Council

**Q76 Consider the following countries of South Asia**

- (1) Bangladesh
- (2) India
- (3) Pakistan
- (4) Sri Lanka

**The descending order of literacy status of these countries is**

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

**Q77 Among the following major stock exchanges of India, the exchange which recorded highest turnover during the year 2001-01 is**

- (a) Bombay Stock Exchange
- (b) Calcutta Stock Exchange
- (c) Delhi Stock Exchange
- (d) National Stock Exchange

**Q78 A bus is moving with a speed of 30 km/hr ahead of a car with a speed of 50 km/hr. How many kilometers apart are they if it takes 15 minutes for the car to catch up with the bus ?**

- (a) 5 km
- (b) 7.5 km
- (c) 12.5 km
- (d) 15 km

**Q79 The President of India National Congress as the time of partition of India was**

- (a) C Rajagopalachari
- (b) J B Kripalani
- (c) Jawaharlal Nehru
- (d) Maulana Abul Kalam Azad

**Q80 Which one of the following authorities recommends the principles governing the grants-in-aid of the revenues to the states out of the Consolidated Fund of India?**

- (a) Finance Commission
- (b) Inter-State Council
- (c) Union Ministry of Finance
- (d) Public Accounts Committee

**Q81 With reference to colonial period of Indian history, match List I (Person) with List II (Event) and select the correct answer using the codes given below the lists :**

List I - List II

(Person) - (Event)

- A. MacDonal - 1. Doctrine of Lapse
- B. Linlithgow - 2. Communal Award
- C. Dalhousie - 3. August Offer
- D. Chelmsford - 4. Dyarchy

Codes:

A B C D

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

**Q82 Consider the following statements:**

1. Ocean currents are the slow-surface movement of water in the ocean.
2. Ocean currents assist in maintaining the Earth's heat balance.
3. Ocean currents are set in motion primarily by prevailing winds.
4. Ocean currents are affected by the configuration of the ocean.

Which of these statements are correct?

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

**Q83 Which country among the following has been involved in two ties in Test cricket?**

- (a) Australia
- (b) India
- (c) West Indies
- (d) England

**Q84 Match List I (Organisation) with List II (Headquarters) and select the correct answer using the codes given below the lists:**

List I - List II

(Organisation) - (Headquarters)

- A. International Atomic Energy Agency - 1. Brussels
- B. International Telecommunication Union - 2. Geneva
- C. Council of the European Union - 3. Paris
- D. Organisation for Economic Cooperation and Development - 4. Vienna

Codes:

A B C D

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

**Q85** With reference to the public Sector Undertaking in India, consider the following statements :

1. Minerals and Metals Trading Corporation of India Limited is the largest non-oil importer of the country.
2. Project and Equipment Corporation of India Limited is under the Ministry of Industry.
3. One of the objectives of Export Credit Guarantee Corporation of India Limited is to enforce quality control and compulsory pre-shipment inspection of various exportable commodities

Which of these statements is/are correct?

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

**Q86** Match List I (Block) with List II (Author) and select the correct answer using the codes given below the lists :

List I - List II

(Book) - (Author)

- A. Autobiography of an Unknown Indian - 1. Mulk Raj Anand
- B. India : A Wounded Civilization - 2. Nirad C Chaudhuri
- C. Confessions of a Lover - 3. R K Narayan
- D. The English Teacher- 4. V S Naipaul

Codes:

A B C D

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

**Q87** With reference to the Indian Public Finance consider the following statements:

1. External liabilities reported in Union Budget are based on historical exchange rates
2. The continued high borrowing has kept the real interest rates high in the economy
3. The upward trend in the ratio of Fiscal Deficit to GDP in recent years has an adverse effect to private investments.
4. Interest payments is the single largest component of the non-plan revenue expenditure of the Union Government.

Which of these statements are correct ?

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

Q88 With reference to Indian Polity, which one of the following statements is correct?

- (a) Planning Commission is accountable to Parliament
- (b) President can make ordinance only when either of the two Houses of Parliament is not in session
- (c) The minimum age prescribed for appointment as a Judge of the Supreme Court is 40 years
- (d) National Development Council is constituted of Union Finance Minister and the Chief Ministers of all the States

Q89 The correct sequence of the eastward flowing rivers of the peninsular India from north to south is

- (a) Subranarekha, Mahanadi, Godavari, Krishna, Pennar, Cauvery and Vagai
- (b) Subranarekha, Mahanadi, Godavari, Cauvery, Vagai Pennar
- (c) Mahanadi, Subarnarekha, Godavari, Krishna, Cauvery, Pennar and vagai
- (d) Mahanadi, Subarnarekha, Krishna, Godavari, Cauvery, Vagai and Pennar

Q90 The world's highest ground based telescopic observatory is located in

- (a) Colombia
- (b) India
- (c) Nepal
- (d) Switzerland

Q91 Two ladies simultaneously leave cities A and B connected by a straight road and travel towards each other. The first lady travels 2 km/hr faster than the second lady and reaches B one hour before the second lady reaches A. The two cities A and B are 24 km apart. How many kilometers does each lady travel in one hour?

- (a) 5 km, 3 km
- (b) 7 km, 5 km
- (c) 8 km, 6 km
- (d) 16 km, 14 km

Q92 Consider the following names:

1. Archbishop Desmond Tutu
2. Lech Walesa
3. Shimon Peres
4. Yasser Arafat

Who among these won the Nobel Peace Prize?

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

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

**Q93** With which one of the following mountain tribes did the British first come into contact with after the grant of Diwani in the year 1765?

- (a) Garo
- (b) Khasis
- (c) Kukis
- (d) Tipperahs

**Q94** With reference to Indian transport systems, consider the following statements:

1. Indian railways system is the largest in the world.
2. National Highways cater to 45 per cent of the total road transport demand.
3. Among the states, Kerala has the highest density of surface road.
4. National Highway No. 7 is the longest in the country.

Which of these statements are correct?

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

**Q95** Match List I (Name of the Lady) with List II (Achievement) and select the correct answer using the codes given below the lists:

List I - List II

(Name of the lady) - (Achievement)

- A. Chinna Pillai - 1. Winner of Neerja Bhanot Award
- B. Kaveri Thakur - 2. Recipient of Stree Shakti
- C. Mira Nair - 3. Became the fastest swimmer in Asia at the age of 16 years
- D. Yasoda Ekambaram - 4. Recipient of the Golden Lion at Venice Film Festival

Codes:

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

**Q96** With reference to the government's welfare schemes, consider the following statements :

1. Under the Antyodaya Anna Yojana, the food grains are available to the poorest of the poor families at Rs 2 per kg for wheat and Rs. 3 per kg for rice
2. Under the National Old Age Pension Scheme, the old and destitute are provided Rs 75 per month as Central pension, in addition to the amount provided by most State Governments.
3. Government of India has allocated 25 kg food grains per Below Poverty Line family per month, at less than half the economic cost.

Which of these statements are correct ?

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

**Q97 Consider the following countries :**

1. Brazil
2. Indonesia
3. Japan
4. Russia

**What is the descending order of the size of the following countries population wise ?**

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

**Q98 Consider the following countries :**

1. Angola
2. Colombia
3. Congo
4. Sudan

**Which of these countries has/have been suffering from civil war?**

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

**Q99 Who among the following was the first Bhakti saint to use Hindi for the propagation of his message ?**

- (a) Dadu
- (b) Kabir
- (c) Ramananda
- (d) Tulsidas

**Q100 In a bisexual flower, if androecium and gynaecium mature at different times, the phenomenon is known as**

- (a) Dichogamy
- (b) Herkogamy
- (c) Heterogamy
- (d) Monogamy

**Q101** The average annual temperature of a meteorological station is 26°C, its average annual rainfall is 63 cm and the annual range of temperature is 9°C. The station in Question is

- (a) Allahabad
- (b) Chennai
- (c) Cherrapunji
- (d) Kolkata

**Q102** With reference to the period of extremist nationalist movement in India with its spirit of Swadeshi, which one of the following statements is not correct ?

- (a) Liakat Hussain led the Muslim peasants of Barisal in their agitations
- (b) In 1898, the scheme of national education was formulated by Satish Chandra Mukherjee
- (c) The Bengal National College was founded in 1906 with Aurobindo as the Principal
- (d) Tagore preached the cult of Atmasakti, the main plank of which was social and economic regeneration of the villages

**Q103** In the Indian Constitution, the Right to Equality is granted by Five Articles. They are

- (a) Article 16 to Article 20
- (b) Article 15 to Article 19
- (c) Article 14 to Article 18
- (d) Article 13 to Article 17

**Q104** Amit started a business by investing Rs. 30,000. Rahul joined the business after some time and invested Rs. 20,000. At the end of the year, profit was divided in the ratio of 2 : 1. After how many months did Rahul joined the business?

- (a) 2
- (b) 3
- (c) 4
- (d) 5

**Q105** The time in the wall-clock is 3.25 the acute angle between the hours-hand and the minutes-hand is

- (a) 60°
- (b) 52 ½°
- (c) 47 ½°
- (d) 42°

**Q106** Which one of the following amendments to the Indian Constitution empowers the President to send back any matter for reconsideration by the Council of Ministers?

- (a) 39th
- (b) 40th
- (c) 42nd
- (d) 44th

**Q107** Recently, several hundred South Africa soldiers were sent to Burundi

- (a) to side with the Tutsi tribe in the country's civil war
- (b) to side with the Hutu tribe in the ongoing ethnic conflict
- (c) as a part of United Nations special force to keep control on the ethnic groups revolting against the government
- (d) as South Africa's protection force to help mediate and agreement between warring groups of civil war

**Q108** Chapchar Kut is a festival celebrated in the state of

- (a) Arunachal Pradesh
- (b) Assam
- (c) Mizoram
- (d) Sikkim

**Q109** Consider the following statements:

1. NTPC is the largest power utility in India.
2. ONGC accounts for half of the LPG production in India.
3. Indian Oil Corporation operates all the oil refineries in India.
4. The Indian Ordinance Factory is the largest departmentally run industrial undertaking in the country.

Which of these statements is/are correct?

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

**Q110** Match List I (Oxidation number) with List II (The element) and select the correct answer using the codes given below this lists:

List I - List II

(Oxidation number) - (The element)

- A. 2 - 1. Oxidation number of Mn in  $MnO_2$
- B. 3 - 2. Oxidation number of S in  $H_2S_2O_7$
- C. 4 - 3. Oxidation number of Ca in  $CaO_2$
- D. 6 - 4. Oxidation number of Al in  $NaAlH_4$

Codes:

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

**Q111** With reference to the Indian freedom struggle, which one of the following statements is not correct?



- (a) Hakim Ajmal Khan was one of the leaders to start a nationalist and militant Ahrar movement
- (b) When the Indian National Congress was formed, Sayyid Ahmad Khan opposed it
- (c) The All-India Muslim League which was formed in 1906 vehemently opposed the partition of Bengal and separate electorates
- (d) Maulana Barkaullah and Maulana Obeidullah Sindhi were among those who formed a Provisional Government of India in Kabul

Q112 The Asia Pacific Economic Cooperation Forum was held in the year 2001 in

- (a) Bangkok
- (b) Hongkong
- (c) Jakarta
- (d) Shanghai

Q113 Match List I (Ethnic Community) with List II (Country) and select the correct answer using the codes given below the lists:

List I - List II

(Ethnic community) - (Country)

- A. Apatani - 1. China
- B. Dayak - 2. India
- C. Dinka - 3. Indonesia
- D. Uighur - 4. Sudan

Codes:

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

Q114 The term of the Lok Sabha

- (a) cannot be extended under any circumstances
- (b) can be extended by six months at a time
- (c) can be extended by one year at a time during the proclamation of emergency
- (d) can be extended-for two years at a time during the proclamation of emergency

Q115 In the year 2001, Germany approved a \$32 million credit to India

- (a) to promote primary education in selected states
- (b) for Tehri dam project
- (c) to assist in the development of nuclear power
- (d) for oceanographic research

Q116 Consider the following:

1. Currency with the public
2. Demand deposits with banks

**3. Time deposits with banks**

**Which of these are included in Broad Money (M3) in India?**

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

**Q117 Who among the following won six gold medals in the 9th FINA - World Swimming Championship held in Fukuoka, Japan in the year 2001?**

- (a) Grant Hackett
- (b) Ian Thorpe
- (c) Michael Phelps
- (d) Roman Sloudnov

**Q118 Foot-and-Mouth disease in animals, a current epidemic in some parts of the world, is caused by**

- (a) Bacterium
- (b) Fungus
- (c) Protozoan
- (d) Virus

**Q119 In the year 2001, India offered a grant of five million dollars to Tajikistan to**

- (a) tackle the drought situation
- (b) set up a software Technology Park
- (c) promote mineral exploration
- (d) procure defence equipment

**Q120 Consider the following countries:**

1. Albaina
2. Bosnia Herzegovina
3. Croatia
4. Macedonia

**Which of these countries has/have Adriatic Sea as a boundary?**

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

**Q121 A hollow sphere of radius R, a hollow cube of side R and a thin circular plate of radius R, made up of the same material, are all heated to 20°C above room temperature. When left to cool in the room, which of them will reach the room temperature first?**

- (a) Circular plate

- (b) Cube
- (c) Sphere
- (d) All of them will reach the room temperature at the same time

**Q122 Consider the following financial institution of India:**

1. Industrial Finance Corporation of India (IFCI)
2. Industrial Credit and Investment Corporation of India (ICICI)
3. Industrial Development Bank of India (IDBI)
4. National Bank for Agriculture and Rural Development (NABARD)

**The correct chronological sequence of the establishment of these institutions is**

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

**Q123 During the Indian freedom struggle, the Khudai Khidmatgars, also known as Red Shirts, called for**

- (a) the Union of Pashtun tribal areas in north-west with the Afghanistan
- (b) the adoption of terrorist tactics and methods for terrorising and finally ousting the colonial rulers
- (c) the adoption of communist revolutionary ideology for political and social reform
- (d) the Pathan regional nationalist unity and a struggle against colonialism

**Q124 Match List I (Commission ) with List II (Matter of Enquiry) and select the correct answer using the codes given below the lists :**

**List I - List II**

**(Commission) - (Matter of enquiry)**

- A. Wadhwa Commission - 1. The assassination of Rajiv Gandhi**
- B. Liberhan Commission - 2. Killing of Graham Staines**
- C. Sri Krishan Commission - 3. Demolition of a religious structural at Ayodhya**
- D. Jain Commission - 4. Riots in Mumbai In 1993**

**Codes:**

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

**Q125 Consider the following statements :**

1. In equatorial regions, the year is divided into four main seasons
2. In Mediterranean region, summer receives more rain
3. In China type climate, rainfall occurs throughout the year
4. Tropical highlands exhibit vertical zonation of different climates

**Which of these statements are correct ?**

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

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

**Q126 A World Summit with representation from all the countries will be held in Johannesburg in September 2002 on the subject of**

- (a) AIDS control
- (b) Global terrorism
- (c) Human rights
- (d) Sustainable development

**Q127 Which one of the following statements is not correct ?**

- (a) All echinoderms are viviparous
- (b) Round worm has no circulatory system
- (c) In bony fishes, swim bladder is usually present
- (d) In cartilaginous fishes, fertilisation is internal

**Q128 Assume that the moon takes exactly 30 days to complete the cycle and also assume that it rises in the East exactly at 6.48 p.m. on the first day. On the fourth day, at what time will it rise?**

- (a) 8.24 p.m.
- (b) 9.12 p.m.
- (c) 10.00 p.m.
- (d) 11.48 p.m.

**Q129 Match List I (Scientists) with List II (Achievement) and select the correct answer using the codes given below the lists:**

**List I - List II**

**(Scientists) - (Achievement)**

- A. Arber and Smith - 1. Developed transgenic plants with Agrobacterium T-DNA**
- B. Feldmann - 2. Discovered endonucleases**
- C. Mullis - 3. Discovered reverse transcriptase**
- D. Temin and Baltimore - 4. Discovered polymerase chain reaction**

**Codes:**

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

**Q130 Berber speaking community, frequently in the news, lives in**

- (a) Afghanistan
- (b) Algeria
- (c) Argentina
- (d) Australia

**Q131** In the case of election to the Lok Sabha, the amount of Security deposited for general category candidates and SC/ST category candidates respectively is

- (a) Rs 5,000 and Rs 2,500
- (b) Rs 10,000 and Rs 2,500
- (c) Rs 10,000 and Rs 5,000
- (d) Rs 25,000 and Rs 12,500

**Q132** With reference to power sector in India consider the following statements:

1. Rural electrification has been treated as a Basic Minimum Service under the Prime Minister's Gramodaya Yojana.
  2. 100 per cent Foreign Direct Investment in power is allowed without upper limit
  3. The Union Ministry of Power has signed a Memoranda of Understanding with 14 states.
- Which of these statements is/are correct?

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

**Q133** A country is said to be in debt trap if

- (a) it has to abide by the conditionalities imposed by the International Monetary Fund
- (b) it has to borrow to make interest payments to on outstanding loans
- (c) it has been refused loans or aid by creditors abroad
- (d) the World Bank charges a very high rate of interest on outstanding as well as new loans

**Q134** Which one of the following statements is correct?

- (a) Prions are the smallest free-living cells
- (b) The cell wall of Mycoplasmas is made up of amino sugars
- (c) Viroids consist of a single-stranded RNA molecule
- (d) Rickettsias lack cell wall

**Q135** Match List I (Country) with List II (President) and select the correct answer using the codes given below the lists:

List I - List II

(Country) - (President)

- A. Congo - 1. Levy Mwanawasa
- B. Nigeria - 2. Joseph Kabila
- C. Uganda - 3. Olusegun Obasanjo
- D. Zambia - 4. Yoweri Museveni

Codes:

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

(d) 3 2 4 1

**Q136 Consider the following ecosystems:**

1. Taiga
2. Tropical evergreen
3. Tropical deciduous
4. Tundra

The correct sequence in decreasing order of the albedo values of these ecosystems is

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

**Q137 Consider the following statements:**

Full convertibility of the rupee may mean

1. its free float with other international currencies.
2. its direct exchange with any other international currency at any prescribed place inside and outside the country.
3. it acts just like any other international currency.

Which of these statements are correct?

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

**Q138 The sea coast of which one of the following states has become famous as a nesting place for the giant Olive Ridley turtles from South America?**

- (a) Goa
- (b) Gujarat
- (c) Orissa
- (d) Tamil Nadu

**Q139 With reference to Indian satellites and their launchers, consider the following statements:**

1. All the INSAT-series of satellites were launched abroad
2. PSLVs were used to launch IRS-series of satellites
3. India used the indigenously built cryogenic engines for the first time for powering the third stage of GSLV
4. GSAT, launched in the year 2001, has payloads to demonstrate digital broadcasts and internet services

Which of these statements are correct?

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

(d) 2 and 3

**Q140 The 93rd Constitutional Amendment Bill deals with the**

- (a) continuation of reservation for backward classes in government employment
- (b) free and compulsory education for all children between the age of 6 and 14 years
- (c) reservation of 30 per cent posts for women in government recruitments
- (d) allocation of more number of parliamentary seats for recently created States

**Q141 Assertion (A) :**

Drinking of whisky increases the frequency of urination.

**Reason (R) :**

Alcohol intake speeds up the secretion of vasopressin in the body.

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

**Q 142**

**Assertion (A) :**

Muhammad bin Tughlaq left Delhi, and, for two years lived in a camp called Swarga-dwari.

**Reason (R) :**

At that time, Delhi was ravaged by a form of plague and many people died.

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

**Q143 Assertion (A) :**

With the increase of temperature, the viscosity of glycerine increases.

**Reason (R) :**

Rise of temperature increases kinetic energy of molecules.

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

**Q144 Assertion (A) :**

The effect of labour participation in the Indian nationalist upsurge of the early 1930s was weak.

**Reason (R) :**

The labour leaders considered the ideology of Indian National Congress as bourgeois and reactionary.

- (a) Both A and R are individually true and R is the correct explanation of A
- (b) Both A and R are individually true but R is not a correct explanation of A

- (c) A is true but R is false
- (d) A is false but R is true

**Q145 Assertion (A) :**

Synthetic detergents can lather well in hard water.

**Reason (R) :**

Synthetic detergents form soluble calcium and magnesium salts with hard water.

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

**Q146 Assertion (A) :**

60°-65° latitudes in both the hemispheres have a low pressure belt instead of high pressure.

**Reason (R) :**

The low pressure areas are permanent over oceans rather than on land.

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

**Q147 Assertion (A) :**

Artificial satellites are always launched from the earth in the eastward direction.

**Reason (R) :**

The earth rotates from west to east and so the satellite attains the escape velocity.

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

**Q148 Assertion (A) :**

Human diet should compulsorily contain Glycine, Serine and Tyrosin.

**Reason (R) :**

Essential amino acids cannot be synthesised in the human body.

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

**Q149 Assertion (A) :**

The surface winds spiral inwards upon the centre of the cyclone.

**Reason (R) :**

Air descends in the centre of the cyclone.



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

**Q150 Assertion (A) :**

**An iron ball floats on mercury but gets immersed in water.**

**Reason (R) :**

**The specific gravity of iron is more than that of mercury.**

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