## QUESTION PAPER 2002

1. 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) $7 / 12$
2. 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
3. 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 millimetres 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 plans of the country
(d) The mountain areas accounts for about thirty per cent of the surface area of the country
4. 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
5. 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 theologists were often disregarded
(c) the Sultan supplemented the Muslim law by framing his own regulations
(d) religious freedom was accorded to non-Muslims
6. 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
7. With reference to the latest developments in stem cell research, consider the following statements:
8. The only source of human stem cells are the embryos at blastocyst stage
9. The stem cells can be derived a without causing destruction to blastocysts
10. The stem cells can regenerate themselves in vitro virtually forever
11. 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
12. In the year 2001, NASA launched a spacecraft to Mars named
(a) Mars Climate Orbiter
(b) Mars Global Surveyer
(c) Mars Odyssey
(d) Mars Polar Lander
13. Consider the following climatic and geographical phenomena:
14. Condensation
15. High temperature and humidity
16. Orography
17. Vertical wind

Thunder Cloud development is due to which of these pheno-mena?
(a) 1 and 2
(b) 2,3 and 4
(c) 1, 3 and 4
(d) 1, 2, 3 and 4
10. 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
11. 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
12. For short-term climate predictions, 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
13. In the map given below, four islands of Indian Ocean region i.e., (A) Seychelles, (B) Chagos, (C) Mauritius and (D) Socotra 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 |

14. "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
15. Match List I (Ancient site) with List II (Archaeological finding) and select the correct answer using the codes given below the lists:

## List I

(Ancient site)

Lothal
B. Kalibangan

## List II

(Archaeological finding)

1. Ploughed field
2. Deckyard

| C. Dholavira | 3. <br> Terracotta <br> replica of a <br> plough |
| :--- | :--- |
| D. Banawali | 4.An inscription <br> comprising ten <br> large sized signs <br> of the Harappan <br> 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 |

16. Which one of the following statements is not correct?
(a) The status 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
17. 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
18. 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

(Article of Indian Constitution)
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

## List II

(Provisions)

-

20. 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
21. Consider the following statements:
(c) ceremony of initiation of new person into the Buddhist Sangha in which the head is shaved an 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
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 |

19. 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

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
22. 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
5. India has the maximum volume of foreign trade with
(a) USA
(b) Japan
(c) Germany
(d) UAE
6. Which one of the following is not a lagoon?
(a) Ashtamudi lake(b) Chilka lake
(c) Preiyar lake (d) Pulicat lake
7. Ticks and mites are actually
(a) Arachnids
(b) Crustaceans
(c) Insects
(d) Myriapods
8. 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
9. 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
10. 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
11. 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
12. With reference to Sufism in Indian history, consider the follo-wing statements:
13. Shaikh Ahmad Sarhandi was a contemporary of Ibrahim Lodi
14. Shiakh Nasiruddin Chirag-i-Dehlavi was a disciple of Shaikh Nizamuddin Auliya
15. Aurangzeb was contemporary of Shaikh Salim Chisti
16. The Qadiri order of Sufis was first introducd 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
17. 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
18. Consider the following plants:
19. Bougainvillea
20. Carnations
21. Cocoa
22. 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
33. 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
34. A train of length 150 metres, moving at a speed of $90 \mathrm{~km} / \mathrm{hr}$ can cross a 200 metre bridge in
(a) 8 seconds
(b) 14 seconds
(c) 6 seconds
(d) 15 seconds
35. 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
36. 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
37. Which 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) $3,4,1,2$
(d) $1,3,2,4$
5. Who among the following set a new national record in the women's Polevault 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
6. 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 due to continuous drought and famine
(d) power struggle between political groups of white European settlers and native black community
7. Match List I (Artist) with List II (Art) and select the correct answer using the codes given below the lists:

## List I

(Artist)
A. Hiren Bhattacharya
B. Malini Rajurkar
C. Pratibha Prahlad
D. Vempati

Chinna
Satyam

## 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 |

41. Consider the following natural phenomena:
42. Terrestrial heating
43. Reflection of light
44. Refraction of light
45. Diffraction of light

Due to which of these phenomena is mirage formed?
(a) 1 and 2
(b) 2,3 and 4
(c) 1and 3
(d) 4 only
42. 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
43. 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
44. 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
45. 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
46. 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
47. 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 <br> (Period) |
| :--- | :--- |
| A. $1901-21$ | 1.List II <br> (Phase) |
| B. $1921-51$ | 2.Rapid high growth <br> growth |
| C. $1951-81$ | 3.Stagnant growth <br> D. $1981-2001$4.High growth <br> with definite <br> signs of <br> slowdown |

## List I

(Perod)
B. 1921-51
C. 1951-81
D. 1981-2001

## List II

(Phase)
. Steady growth
. Rapid high growt
4. High growth with definite igns 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 |

48. Who was the first Indian actress to receive the Padma Shri Award?
(a) Samita Patil
(b) Nargis Dutt
(c) Meena Kumari
(d) Madhubala
49. 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
50. Match List I (Indian wildlife species) with List II (Sceintific names) and select the correct answer using the codes given below the lists:

## List I

(Indian wildlife species)
A. Asiatic Wild Ass
B. Barasingha
C. Chinkara
D. Nilgai

## List II

(Scientific names)

1. Boselaphus tragocamelus
2. Cervus duvauceli
3. Equus hemionus
4. Gazella gazella

Codes:

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

51. The motive behind Shahjahan's Balkh campaign was to
(a) secure a friendly ruler in Balkh and Badakshan which bordered Kabul
(b) conquer Samarqand an 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
52. 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
53. 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
54. 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
55. When one gene controls two or more different characters simultaneously, the phenomenon is called
(a) Apomixis
(b) Pleiotropy
(c) Polyploidy
(d) Polyteny
56. Sun's halo is produced by the refraction of light in
(a) Water vapour in Stratus clouds
(b) lce crystals in Cirro-Cumulus clouds
(c) Ice crystals in Cirrus clouds
(d) Dust particles in Stratus clouds
57. 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
58. 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
59. 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
4. 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 (Provisions) government of

## India)

A. Charter Act, 1. Set up a Board 1813 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 Act4. 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 |

61. 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
62. Karnataka

|  | Ratnagiri |  |
| :--- | :--- | :--- |
| B. Coondapur | 2. Kerala |  |
| C. Pichavram | 3. Andhra Pradesh |  |
| D. Vemband | 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 |

62. Which one of the following Acts of British India strengthened the Viceroy's authority over his executive council by substi-tuting "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
63. 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
64. 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
65. With reference to the human body consider the following statements:
66. The production of somatotropin goes up when a person exercises
67. Men's testes produce progesterone
68. Women's adrenal glands secrete testosterone
69. Stress causes the adrenals to release very less amount of cortisol than usual Which of these statements are correct?
(a) 1,2,3 and 4
(b) 1,2 and 3
(c) 2, 3 and 4
(d) 1 and 4
70. In the year 2001, the Prime Minister announced a five-year excise duty holiday for industries in
(a) cyclone prone coastral Andhra Pradesh
(b) border states of North-East
(c) earthquake ravaged Kutch district
(d) recently formed states of Chhattisgarh and Jharkhand
71. Consider the following statements with reference to India:
72. The Chief Election Commissioner and
other Election Commissioners enjoy equal powers but receive unequal salaries
73. The Chief Election Commissioner is entitled to the same salary as in provided to a judge of the Supreme Court
74. 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
75. 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
76. 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
77. Consider the following statements:
78. Light of longer wavelength is scattered much more than the light of shorter wavelength.
79. The speed of visible light in water is 0.95 times and speed in vacuum.
80. Radio waves are produced by rapidly oscillating electrical currents.
81. To detect the overspeeding 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
82. 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
83. In terms of value, which one of the following commodities accounted for the largest agricultural exports by India during the three year period from 19971998 to 1999-2000?
(a) Cereals
(b) Marine products
(c) Spices
(d) Tea
84. 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
85. The Consultative Committee of members of Parliament for Railway Zones in constituted by the
(a) President of India
(b) Ministry of Railways
(c) Ministry of Parliamentary Affairs
(d) Ministry of Transport
86. Which one of the following is monogamous?
(a) Wolf
(b) Walrus
(c) Seal
(d) Deer
87. 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
88. Consider the following countries of South Asia:
(a) Bangladesh
(b) India
(c) Pakistan
(d) Sri Lanka

The descending order of literacy status of these countries is
(a) $4,2,1,3$
(b) 2, 4, 3, 1
(c) $4,2,3,1$
(d) $2,4,1,3$
77. 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
78. A bus is moving with a speed of $30 \mathrm{~km} / \mathrm{hr}$ ahead of a car with a speed of $50 \mathrm{~km} / \mathrm{hr}$. 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
79. 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
80. 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
81. 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

## (Person)

A. MacDonald
B. Linlithgow
C. Dalhousie
D. Chelmsford

## List II

 (Event)1. Doctrine of Lapse
2. Communal Award
3. August Offer
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 |

82. Consider the following statements:
83. Ocean currents are the slow-surface movement of water in the ocean.
84. Ocean currents assist in maintaining the Earth's heat balance.
85. Ocean currents are set in motion primarily by prevailing winds.
86. 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
87. Which country among the following has been involved in two in Test cricket?
(a) Australia
(b) India
(c) West Indies
(d) England
88. 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 1. Brussels

Atomic Energy
Agency
B. International 2. Geneva

Telecommunication Union
C. Council of the 3. Paris European Union
D. Organisation 4. Vienna for Economic Cooperation and Development
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 |

85. With reference to the Public Sector Undertaking in India, consider the following statements:
86. Minerals and Metals Trading Corporation of India Limited is the largest non-oil importer of the country.
87. Project and Equipment Corporation of India Limited is under the Ministry of Industry.
88. 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
89. Match List I (Block) with List II (Author) and select the correct answer using the codes given below the lists:

## List I <br> (Book)

A. Autobiography of an Unknown Indian
B. India: A Wounded Civilization
C. Confessions
3. R K Narayan of a Lover
D. The English 4. V S Naipaul Teacher
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 |

87. With reference to the Indian Public Finance consider the following statements:
88. External liabilities reported in Union Budget are based on historical exchange rates
89. The continued high borrowing has kept the real interest rates high in the economy
90. The upward trend in the ratio of Fiscal Deficit to GDP in recent years has an adverse effect to private investments.
91. 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
92. 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
93. The correct sequence of the eastward flowing rivers of the peninsular India from north to south is
(a) Subranarekha, Mahanadi, Godavari, Krishana, Pennar, Cauvery and Vagai
(b) Subranarekha, Mahanadi, Krishna, Godavari, Cauvery, Vagai and Pennar
(c) Mahanadi, Subarnarekha, Godavari, Krishna, Cauvery, Pennar and Vagai
(d) Mahanadi, Subarnarekha, Krishna, Godavari, Cauvery, Vagai and Pennar
94. The world's highest ground based telescopic observatory is located in
(a) Colombia
(b) India
(c) Nepal
(d) Switzerland
95. Two ladies simultaneously leave cities A and B connected by a straight road and travel towards each other. The first lady travels $2 \mathrm{~km} / \mathrm{hr}$ 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
kilometres does each lady travel in one hour?
(a) $5 \mathrm{~km}, 3 \mathrm{~km}$
(b) $7 \mathrm{~km}, 5 \mathrm{~km}$
(c) $8 \mathrm{~km}, 6 \mathrm{~km}$
(d) $16 \mathrm{~km}, 14 \mathrm{~km}$
96. Consider the following names:
97. Archbishop Desmond Tutu
98. Lech Walesa
99. Shimon Peres
100. 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
93. 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
94. 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
5. 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 (Achievement) lady)
A. Chinna Pillai

1. Winner of Neerja Bhanot Award
B. Kaveri Thakur 2 Puraskar
C. Mira Nair
D. Yasoda Ekambaram
pient of Stree Shakti
2. Became the fastest swimmer in Asia at the age of 16 years
3. 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 |

96. Which reference to the government's welfare schemes, consi-der the following statements:
97. 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
98. Under the National Old Age Pension Scheme, the old and destitute are provided Rs 75 per month as Cental pension, in addition to the amount provided by most State Governments.
99. 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
100. Consider the following countries:
101. Brazil
102. Indonesia
103. Japan
104. Russia

What is the descending order of the size of the following countries populationwise?
(a) $1,2,4,3$
(b) 2, 3, 1, 4
(c) $2,1,4,3$
(d) $1,2,3,4$
98. Consider the following countries:

1. Anglo 2 Colombia
2. 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
99. 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
100. 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
101. The average annual temperature of a meteorological station is $26^{\circ} \mathrm{C}$, its average annual rainfall is 63 cm and the annual range of temperature is $9^{\circ} \mathrm{C}$. The station in question is
(a) Allahabad
(b) Chennai
(c) Cherrapunji
(d) Kolkata
102. 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 Hossain led the Muslim peasants of Barisal in their agitations
(b) In 1989, 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
103. 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
104. 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
105. When the time in the wall-clock is 3.25 p.m. the acute angle between the hourshand and the minutes-hand is
(a) $60^{\circ}$
(b) $52 \frac{1}{2}$ 。
(c) $47 \frac{1}{2}$ 。
(d) $42^{\circ}$
106. 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) 39 th
(b) 40 th
(c) 42 nd
(d) 44 th
107. 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
108. Chapchar Kut is a festival celebrated in the state of
(a) Arunachal Pradesh
(b) Assam
(c) Mizoram
(d) Sikkim
109. Consider the following statements:

1. NTPD 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 depar-tmentally 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
5. Match List I (Oxdiation number) with List II (The element) and select the correct answer using the codes given below this lists:

## List I

(Oxidation number)
A. 2
B. 3
C. 4
D. 6

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 |

111. 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 nationslist 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 rormed 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
112. The Asia Pacific Economic Cooperation Forum was held in the year 2001 in
(a) Bangkok
(b) Hongkong
(c) Jakarta
(d) Shanghai
113. 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 <br> (Country) |
| :--- | :--- |
| comnic |  |

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 |

114. 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 procla-mation of emergency
(d) can be extended for two years at a time during the pro-clamation of emergency
115. 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
(d) for oceanographic research
116. Consider the following:
117. Currency with the public
118. Demand deposits with banks
119. 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
117. 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
118. 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
119. In the year 201, 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
120. 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
121. 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 $20^{\circ} \mathrm{C}$ 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
122. 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) $4,1,2,3$
5. 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
6. Match List I (Commission) with List II (Matter of Enquiry) and select the correct answer using the codes given below the lists:

List I
(Commission)
A. Wadhwa Commission
B. Liberhan Commission
C. Sri Krishan Commission
D. Jain Commission 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 |

125. Consider the following statements:
126. In equatorial regions, the year is divided into four main seasons
127. In Mediterranean region, summer receives more rain
128. In China type climate, rainfall occurs throughout the year
129. 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
130. 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
131. Which one of the following statements is not correct?
(a) All echinoderms are viviparous
(b) Roundworm has no circulatory system
(c) In bony fishes, swim bladder is usually present
(d) In cartilaginous fishes, fertilisation is internal
132. 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) $9.12 \mathrm{p} . \mathrm{m}$.
(c) 10.00 p.m.
(d) 11.48 p.m.
133. Match List I (Scientists) with List II (Achievement) and select the correct answer using the codes given below the lists:

List I
(Scientists)
A. Arber and Smith
B. Feldman
C. Mullis
D. Temin and Baltimore

## List II

(Achievement)

1. Developed transgenic plants with Agrobacterium T-DNA
2. Discovered endonucleares
3. Discovered reverse transcriptase
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 |

130. Berber speaking community, frequently in the news, lives in
(a) Afghanistan
(b) Algeria
(c) Argentina
(d) Australia
131. 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 15,000 and Rs 7,500
132. With reference to power sector in India consider the following statements:
133. Rural electrification has been treated as a Basic Minimum Service under the Prime Minister's Gramodaya Yojana.
134. 100 per cent Foreign Direct Investment in power is allowed without upper limit
135. 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
136. 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
137. 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
138. Match List I (Country) with List II (President) and select the correct answer using the codes given below the lists:

## List I (Country)

A. Congo
B. Nigeria
C. Uganda
D. Zambia

## List II

(President)

1. Levy Mwanawasa
2. Joseph Kabila
3. Olusegum Obasanjo
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 |

136. Consider the following ecosystems: 1. Taiga
137. Tropical evergreen
138. Tropical deciduous
139. 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) $1,4,2,3$
137. 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
4. 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
5. With reference to Indian satellites and their launchers, consider the following statements:
6. All the INSAT-series of satellites were launched abroad
7. PSLVs were used to launch IRS-series of satellites
8. India used the indigenousely built cryogenic engines for the first time for powering the third stage of GSLV
9. 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) 1 and 3
10. 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

Directions: The following 10 (ten) items consist of two state-ments, one labelled as the "Assertion A" and the other as "Reason R". You are to examine these two statements carefully and decide if the "Assertion A" and the "Reason $R$ " are individually are true and if so, whether the "Reason $R$ " is the correct explanation for the given "Assertion A". Select your answer to these items using the codes given below and mark your Answer. Sheet accordingly.

Codes:
(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
141. Assertion (A) : Drinking of whisky increases the frequency of urination.

Reason (R) : Alcohol intake speeds up the secretion of vasopressin in the body.
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.
143. Assertion (A) : With the increase of temperature, the viscosity of glycerine increases.

Reason (R) : Rise of temperature increases kinetic energy of molecules.
144. 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.
145. Assertion (A) : Synthetic detergents can lather well in hard water.

Reason (R) : Synthetic detergents form soluble calcium and magnesium salts with hard water.
146. Assertion (A) : $60^{\circ}-65^{\circ}$ 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.
147. 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.
148. Assertion (A) : Human diet should compulsorily contain Glycrine, Serine and Tyrosin.
Reason (R) : Essential amino acids cannot be synthe-sised in the human body.
149. Assertion (A) : The surface winds spital inwards upon the centre of the cyclone.

Reason (R) : Air descends in the centre of the cyclone.
150. 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.

## ANSWERS

| 1. (d) | 2. (c) | 3. (a) | 4. (b) | 5. (b) | 6. (b) | 7. (d) | 8. (c) | 9. (a) | 10. (c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11. (b) | 12. (c) | 13. (d) | 14. (b) | 15. (b) | 16. (a) | 17. (d) | 18. (a) | 19. (b) | 20. (d) |
| 21. (a) | 22. (d) | 23. (a) | 24. (c) | 25. (a) | 26. (d) | 27. (a) | 28. (b) | 29. (a) | 30. (d) |
| 31. (b) | 32. (d) | 33. (c) | 34. (b) | 35. (d) | 36. (a) | 37. (c) | 38. (c) | 39. (b) | 40. (c) |
| 41. (c) | 42. (b) | 43. (a) | 44. (d) | 45. (b) | 46. (a) | 47. (c) | 48. (b) | 49. (d) | 50. (b) |
| 51. (b) | 52. (c) | 53. (b) | 54. (d) | 55. (b) | 56. (c) | 57. (a) | 58. (d) | 59. (b) | 60. (a) |
| 61. (d) | 62. (a) | 63. (b) | 64. (c) | 65. (d) | 66. (c) | 67. (b) | 68. (a) | 69. (d) | 70. (b) |
| 71. (b) | 72. (d) | 73. (c) | 74. (a) | 75. (d) | 76. (c) | 77. (a) | 78. (a) | 79. (b) | 80. (a) |
| 81. (b) | 82. (d) | 83. (a) | 84. (d) | 85. (a) | 86. (b) | 87. (c) | 88. (b) | 89. (a) | 90. (b) |
| 91. (c) | 92. (d) | 93. (b) | 94. (d) | 95. (b) | 96. (d) | 97. (c) | 98. (c) | 99. (c) | 100. (a) |
| 101. (a) | 102. (a) | 103. (c) | 104. (b) | 105. (c) | 106. (d) | 107. (d) | 108. (c) | 109. (d) | 110. (a) |
| 111. (c) | 112. (d) | 113. (a) | 114. (c) | 115. (d) | 116. (d) | 117. (b) | 118. (d) | 119. (a) | 120. (b) |
| 121. (c) | 122. (a) | 123. (d) | 124. (b) | 125. (d) | 126. (d) | 127. (a) | 128. (b) | 129. (c) | 130. (b) |
| 131. (c) | 132. (c) | 133. (b) | 134. (c) | 135. (a) | 136. (c) | 137. (d) | 138. (c) | 139. (c) | 140. (b) |
| 141. (c) | 142. (c) | 143. (d) | 144. (a) | 145. (a) | 146. (c) | 147. (c) | 148. (d) | 149. (b) | 150. (c) |

