

QUESTION PAPER 2001

1. In what way does the Indian, Parliament exercise control over the administrative?
- Through Parliamentary Committees
 - Through Consultative Committees of various ministers
 - By making the administrators send periodic reports
 - By compelling the executive to issue writs

2. Antigen is a substance which
- destroys harmful bacteria
 - is used to treat poisoning
 - lowers body temperature
 - stimulates formation of antibody

3. Who among the following organised the famous Chittagong armoury raid?

- Laxmi Sehgal
- Surya Sen
- Batukeshwar Datta
- J M Sengupta

4. Solve the given equations:

$$x^2 + y^2 = 34$$

$$x^4 - y^4 = 544$$

The values of x and y are

- $\pm 4, \pm 3$
- $\pm 5, \pm 3$
- $\pm 3, \pm 5$
- $\pm 3, \pm 4$

5. Consider the decadal Census data given below:

Decadal Population (in millions)

Year	Population
1961	10.7
1971	14.3
1981	16.2
1991	18.9

The above data refer to which one of the 'Population by Reli-gion' groups?

- Sikhs
- Jains
- Christians
- Buddhists

6. Which of the following committees examined and suggested Financial Sector reforms?

- Abid Hussain Committee
- Bhagwati Committee
- Chelliah Committee
- Narasimham Committee

7. In which one of the following cities is the Lingaraja Temple located?

- Bhubaneswar
- Bijapur
- Kolkata
- Shravanabelagola

8. A worker reaches his factory 3 minute late if his speed from his house to the factory is 5 km/hr. If he walks at a speed of 6 km/hr, then he reaches the factory 7 minutes early. The distance of the factory from his house is

- 4 km
- 5 km
- 6 km
- 7 km

9. A London branch of the All India Muslim League was established in 1908 under the presidency of

- Aga Khan
- Ameer Ali
- Liaquat Ali Khan
- M A Jinnah

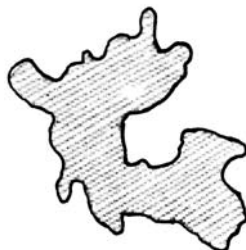
10. Which of the following features of DNA makes it uniquely suited to store and transmit genetic information from generation to generation?

- Complementarity of the two strands
- Double helix
- Number of base-pairs per turn
- Sugar phosphate backbone

11. Two wires have their lengths, diameters and resistivities, all in the ratio of 1 : 2. If the resistance of the thinner wire is 10 ohms, the resistance of the thicker wire is

- 5 ohms
- 10 ohms
- 20 ohms
- 40 ohms

12. The above map is the Union Territory of



- Chandigarh
- Daman and Diu
- Dadra and Nagar Haveli
- Pondicherry

13. Identify the correct order of the processes of soil erosion from the following:

- Splash erosion, Sheet erosion, Rill erosion, Gully erosion
- Sheet erosion, Splash erosion, Gully erosion, Rill erosion
- Rill erosion, Gully erosion, Sheet erosion, Splash erosion
- Gully erosion, Rill erosion, Sheet erosion, Splash erosion

14. The new series of Wholesale Price Index (WPI) released by the Government of India is with reference to the base prices of

- 1981–82
- 1990–91
- 1993–94
- 1994–95

15. The chess player Alexi Shirov represents

- Albania
- Kazhakstan
- Russia
- Spain

16. Consider the following organisations:

- Atomic Minerals Directorate for Research and Exploration
- Heavy Water Board
- Indian Rare Earths Limited
- Uranium Corporation of India

Which of these is/are under the Department of Atomic Energy?

- 1 only
- 1 and 4
- 2, 3 and 4
- 1, 2, 3 and 4

17. Who among the following was the President of the All-India States' Peoples' Conference in 1939?

- Jaya Prakash Narayan
- Jawaharlal Nehru
- Sheikh Abdullah
- Sardar Vallabhbhai Patel

18. Consider the following statements about the minorities in India:

- The Government of India has notified five communities, namely, Muslims, Sikhs, Christians, Buddhists and Zoroastrians as Minorities
- The National Commission for Minorities was given statutory status in 1993
- The smallest religious minority in India are the Zoroastrians

4. The Constitution of India recognises and protects religious and linguistic minorities. Which of these statements are correct?
 (a) 2 and 3 (b) 1 and 4
 (c) 2, 3 and 4 (d) 1, 2 and 4

19. The temperature and rainfall of a meteorological station are given below:

	Tem. (°C)	Rainfall (cm)
J	9.4	12.2
F	10.6	9.1
M	11.7	9.7
A	12.2	2.5
M	13.3	1.8
J	13.9	0.3
J	13.9	–
A	14.4	–
S	15.6	0.8
O	15.0	2.5
N	13.3	6.1
D	10.6	11.7

Average temperature: 12.8 °C

Average rainfall : 54.9 cm per annum

Identify the region having the above climatic pattern from amongst the following:

- (a) Mediterranean region
 (b) Monsoon region
 (c) Steppe region
 (d) NW European region
20. The theme of the World Development Report 2001, is
 (a) From Plan to Market
 (b) Knowledge for Development
 (c) Attacking Poverty
 (d) The State in the Changing World
21. Which of the following cell organelles play the most significant role in protein synthesis?
 (a) Lysosome and Centrosome
 (b) Endoplasmic reticulum and Ribosome
 (c) Golgi apparatus and Mitochondria
 (d) Lysosome and Mitochondria
22. In which one of the following areas does the State Government *not* have control over its local bodies?
 (a) Citizens' grievances
 (b) Financial matters
 (c) Legislation
 (d) Personnel matters
23. A conveyer belt delivers baggage at the rate of 3 tons in 5 minutes, and a second conveyer, belt delivers baggage at the

rate of 1 ton in 2 minutes. How much time will it take to get 33 tons of baggage delivered using both the conveyer belts?

- (a) 25 minutes and 30 seconds
 (b) 30 minutes
 (c) 35 minutes
 (d) 40 minutes and 45 seconds
24. Who amongst the following Englishmen first translated *Bhagavad Gita* into English?
 (a) William Jones
 (b) Charles Wilkins
 (c) Alexander Cunningham
 (d) John Marshall

25. Consider the following statements regarding the High Courts in India:

- There are eighteen High Courts in the country
- Two of them have jurisdiction over more than one state
- No Union Territory has a High Court of its own
- Judge of the High Court hold office till the age of 62

Which of these statements is/are correct?

- (a) 1, 2 and 4 (b) 2 and 3
 (c) 1 and 4 (d) 4 only
26. The term National Income represents
 (a) Gross national product at market prices *minus* depreciation
 (b) Gross national product at market prices *minus* depreciation *plus* net factor income from abroad
 (c) Gross national product at market prices *minus* depreciation and indirect taxes *plus* subsidies
 (d) Gross national product at market prices *minus* net factor income from abroad

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

List I (Local wind)	List II (Region)
A. Fohn	1. Argentina
B. Samun	2. Kurdistan
C. Santa Ana	3. California
D. Zonda	4. Alps

Codes:

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

28. The given map shows four towns of Central Asian region market as 1, 2, 3 and 4. Identify these from the following list and select the correct answer using the codes given below:

Town : A. Bishkek B. Ashkhabad
 C. Taskent D. Dushanbe



Codes:

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

29. Mekong Ganga co-operation project is
 (a) an irrigation project involving India and Myanmar
 (b) a joint tourism initiative of some Asian countries
 (c) a hydroelectric power project involving India, Bangla-desh and Myanmar
 (d) a defence and security agreement of India with its eastern neighbours
30. Match List I with List II and select the correct answer using the codes given below the lists:

List I (Amendments to the Constitution)	List II (Contents)
A. The Constitution (Sixty-ninth Amendment) Act, 1991	1. Establishment of state level Rent Tribunals
B. The Constitution (Seventy-fifth Amendment) Act, 1994	2. No reservations for Scheduled Castes in Panchayats in Arunachal Pradesh
C. The Constitution (Eightieth Amendment) Act, 2000	3. Constitution of Panchayats in villages or at other local levels

- D. The Constitution (Eighty-third Amendment) Act, 2000
4. Accepting the recommendations of the Tenth Finance Commission
5. According to the status of National Capital Territory to Delhi

Codes:

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

31. Water is filled in a container in such a manner that its volume doubles after every five minutes. If it takes 30 minutes for the container to be full, in how much time will be one-fourth full?
- (a) 7 minutes and 30 second
(b) 10 minutes
(c) 20 minutes
(d) 25 minutes
32. The largest number of Buddhists is found in
- (a) Bihar (b) Karnataka
(c) Maharashtra (d) Uttar Pradesh
33. Who amongst the following was the chairman of ISRO when INSAT-3B was launched?
- (a) Anil Kakodkar
(b) Abdul Kalam
(c) K Kasturirangan
(d) U R Rao

Directions: The following 12 (twelve) questions consists to two statements, 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 true and if so, whether the 'Reason R' is the correct explanation for the given 'Assertion A'. Select your answers to these questions using the codes given below:

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.

34. Assertion (A) : The Battle of Khanua was certainly more decisive and significant than the First Battle of Panipat.

Reason (R) : Rana Sanga, the Rajput hero, was certainly a more formidable adversary than Ibrahim Lodi.

35. Assertion (A) : Anticyclonic conditions are formed in winter season when atmospheric pressure is high and air temperatures are low.

Reason (R) : Winter rainfall in Northern India causes development of anticyclonic conditions with low temperatures.

36. Assertion (A) : Harshavardhana convened the Prayag Assembly.

Reason (R) : He wanted to popularise only the Mahayana form of Buddhism.

37. Assertion (A) : A stick is dipped in water in a slanting position. If observed sideways, the stick appears short and bent at the surface of water.

Reason (R) : The light coming from the stick undergoes scattering from water molecules giving the stick a short and bent appearance.

38. Assertion (A) : There was an increase in industrial production during 1999–2000.

Reason (R) : The period witnessed a stable exchange rate and improved business sentiments.

39. Assertion (A) : A piece of copper and a piece of glass are heated to the same temperature. When touched, thereafter, the copper piece appears hotter than the glass piece.

Reason (R) : The density of copper is more than that of glass.

40. Assertion (A) : India's software exports increased at an average growth rate of 50 per cent since 1995–96.

Reason (R) : Indian software companies were cost-effective and maintained international quality.

41. Assertion (A) : A chemical reaction becomes faster at higher temperatures.

Reason (R) : At higher temperatures Molecular motion becomes more rapid.

42. Assertion (A) : Ceiling on foreign exchange for a host of current account transaction heads was lowered in the year 2000.

Reason (R) : There was a fall in foreign currency assets also.

43. Assertion (A) : The boiling point of water decreases as the altitude increases.

Reason (R) : The atmospheric pressure increases with altitude.

44. Assertion (A) : Scientists can cut apart and paste together DNA molecules at will, regardless of the source of the molecules.

Reason (R) : DNA fragments can be manipulated using restriction endonucleases and DNA ligases.

45. Assertion (A) : During the Neap Tide the high tide is lower and the low tide is higher than usual.

Reason (R) : The Neap Tide, unlike the Spring Tide, occurs on the New Moon instead of on the Full Moon.

46. The prices at which the government purchases food grains for maintaining the public distribution system and for building up buffer stocks are known as

- (a) minimum support prices
(b) procurement prices
(c) issue prices
(d) ceiling prices

47. The theme of Indian Science Congress, 2001 was

- (a) "Food, nutrition and environmental security"
(b) "Arrest declining interest in pure science"
(c) "Make India energy self-sufficient"
(d) "Make India IT superpower"

48. A city has a population of 3,00,000 out of which 1,80,000 are males. 50 per cent of the population is literate. If 70 per cent of the males are literate, the number of literature females is

- (a) 24,000 (b) 30,000
(c) 54,000 (d) 60,000

49. Consider the following statements regarding environmental issues of India:

1. Gulf of Mannar is one of the biosphere reserves
2. The Ganga Action Plan, phase II, has been merged with the National River Conservation Plan
3. The National Museum of Natural History at New Delhi imparts non-formal education in environment and conservation.
4. Environmental Information System (ENVIS) acts as a decentralised information network for environmental information.

- Which of these statements are correct?
 (a) 1, 2 and 4 (b) 1, 2, 3 and 4
 (c) 2 and 3 (d) 1, 3 and 4
50. Which one of the following is *not* radioactive?
 (a) Astatine (b) Francium
 (c) Tritium (d) Zirconium
51. The American multinational company, Monsanto has produced an insect-resistant cotton variety that is undergoing field trials in India. A toxin gene from which *one* of the following bacteria has been transferred to this transgenic cotton?
 (a) *Bacillus subtilis*
 (b) *Bacillus thuringiensis*
 (c) *Bacillus amyloliquifaciens*
 (d) *Bacillus globii*
52. Which one of the Chola kings conquered Ceylon?
 (a) Aditya I (b) Rajaraja I
 (c) Rajendra (d) Vijayalaya
53. When lightwaves pass from air to glass, the variables affected are
 (a) wavelength, frequency and velocity
 (b) velocity and frequency
 (c) wavelength and frequency
 (d) wavelength and velocity
54. In a survey, it was found that 80 per cent of those surveyed owned a car while 60 per cent of those surveyed owned a mobile phone. If 55 per cent owned both a car and a mobile phone, what per cent of those surveyed owned a car or a mobile phone or both?
 (a) 65 per cent (b) 80 per cent
 (c) 85 per cent (d) 97.5 per cent
55. Consider the following statements regarding the Armed Forces:
1. First batch of women pilots was commissioned in Indian Air Force in 1996
 2. Officers Training Academy is located in Nagpur
 3. Southern Command of Indian Navy has its headquarters at Chennai
 4. One of the regional headquarters of Coast Guard is located at Port Blair
- Which of these statements is/are correct?
 (a) 1, 2, 3 and 4 (b) 2, 3 and 4
 (c) 3 only (d) 4 only
56. Consider the following statements regarding power sector in India:
1. The installed capacity of power generation is around 95,000 MW

2. Nuclear plants contribute nearly 15 per cent of total power generation
 3. Hydroelectricity plants contribute nearly 40 per cent of total power generation
 4. Thermal plants at present account for nearly 80 per cent of total power generation
- Which of these statements is/are correct?
 (a) 1 only (b) 2 and 3
 (c) 3 and 4 (d) 1 and 4
57. If a new state of the Indian Union is to be created, which one of the following schedules of the Constitution must be amended?
 (a) First (b) Second
 (c) Third (d) Fifth
58. When water is heated from 0°C to 10°C its volume
 (a) increase
 (b) decrease
 (c) does not change
 (d) first decreases and then increases
59. The cellular and molecular control of programmed cell death is known as
 (a) Apoptosis (b) Ageing
 (c) Degeneration (d) Necrosis
60. National Agricultural Insurance Scheme replacing Com-prehensive Crop Insurance Scheme was introduced in the year
 (a) 1997 (b) 1998
 (c) 1999 (d) 2000
61. Who among the following presided over the Buddhist Council held during the reign of Kanishka at Kashmir?
 (a) Parsva (b) Nagarjuna
 (c) Sudraka (d) Vasumitra
62. Consider the following statements:
1. In a nuclear reactor, self-sustained chain reaction is possible, because
 2. more neutrons are released in each of the fission process
 3. the fast neutrons are slowed down by graphite
 4. every neutron released in the fission reaction initiates further fission
- Which of these statements are correct?
 (a) 1, 2 and 3 (b) 1 and 3
 (c) 2 and 4 (d) 2, 3 and 4
63. In 1930, a person's age was 8 times that of his son. In 1938, the father's age became ten times that of his son's age in 1930. The ages of the son and father in 1940 were, respectively

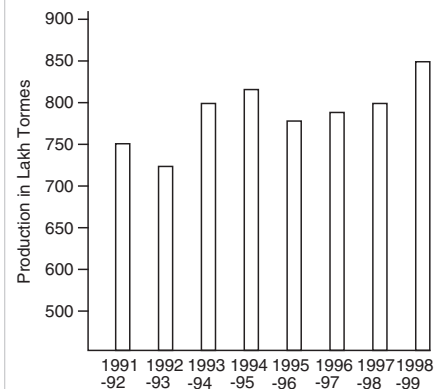
- (a) 16 years, 58 years
 (b) 15 years, 50 years
 (c) 14 years, 42 years
 (d) 13 years, 34 years
64. Match List I with List II and select the correct answer using the codes given below the lists:

List I (Country)	List II (President)
A. Columbia	1. Vicente Fox
B. Philippines	2. Hugo Chavez
C. Mexico	3. Gloria Macapagal Arroya
D. Venezuela	4. Andres Pastrana

Codes:

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

65. The annual agricultural production of a product for the period 1991–92 to 1998–99 is shown in the figure given above. Which one of the following is the product in question?



- (a) Pulses (b) Wheat
 (c) Oilseeds (d) Rice
66. Consider the following states:
1. Gujarat
 2. Karnataka
 3. Maharashtra
 4. Tamil Nadu
- The descending order of these states with reference to their level of Per Capita Net State Domestic Product is
 (a) 1, 3, 4, 2 (b) 3, 1, 2, 4
 (c) 1, 3, 2, 4 (d) 3, 1, 4, 2
67. Consider the following statements regarding the political parties in India:
1. The Representation of the People Act, 1951 provides for the registration of political parties

2. Registration of political parties is carried out by the Election Commission
3. A national level political party is one which is recognised in four or more states
4. During the 1999 general elections, there were six national and 48 state level parties recognised by the Election Commission

Which of these statements are correct?

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

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

List I (Institute)	List II (Location)
------------------------------	------------------------------

- | | |
|---|---------------|
| A. Central Institute of Medicinal and Aromatic Plants | 1. Chandigarh |
| B. Central for DNA Finger Printing and Diagnostics | 2. Hyderabad |
| C. Institute of Micorbial Technology | 3. New Delhi |
| D. National Institute of Immunology | 4. Lucknow |

Codes:

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

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

List I (Bone)	List II (Name)
-------------------------	--------------------------

- | | |
|-------------------|-------------|
| A. Breast-bone | 1. Clavicle |
| B. Collar-bone | 2. Patella |
| C. Knee-cap | 3. Scapula |
| D. Shoulder blade | 4. Sternum |

Codes:

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

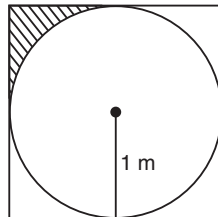
70. Which one of the following animals was *not* represented on the seals and terracotta art of the Harappan culture?

- (a) Cow (b) Elephant
(c) Rhinoceros (d) Tiger

71. The range of Agni-II imissile is around

- (a) 500 km (b) 2000 km
(c) 3500 km (d) 5000 km

72. A circle of 1 m radius is drawn inside a square as shown in the figure given above. What is the area of the shaded portion in m²?



- (a) $(4 - \pi)$ (b) $\left(1 - \frac{\pi}{2}\right)$
(c) $\left(\frac{1}{4} - \frac{\pi}{4}\right)$ (d) $\left(1 - \frac{\pi}{4}\right)$

73. The approximate age of the Aravallis range is

- (a) 370 million years
(b) 470 million years
(c) 750 million years
(d) 670 million years

74. Consider the following

1. Market borrowing
2. Treasury bills
3. Special securities issued to RBI

Which of these is/are component(s) of internal debt?

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

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

List I (Article of the Constitution)	List II (Content)
--	-----------------------------

- | | |
|----------------|---|
| A. Article 54 | 1. Election of the President of India |
| B. Article 75 | 2. Appointment of the Prime Minister and Council of Ministers |
| C. Article 155 | 3. Appointment of the Governor of a state |
| D. Article 164 | 4. Appointment of the Chief Minister and Council of |

Ministers of a state

5. Composition of Legislative Assemblies

Codes:

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

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

List I (Important day)	List II (Date)
----------------------------------	--------------------------

- | | |
|--------------------------|-----------------|
| A. World Environment Day | 1. March 20 |
| B. World Forestry Day | 2. June 5 |
| C. World Habitat Day | 3. September 16 |
| D. World Ozone Day | 4. October 3 |
| | 5. December 10 |

Codes:

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

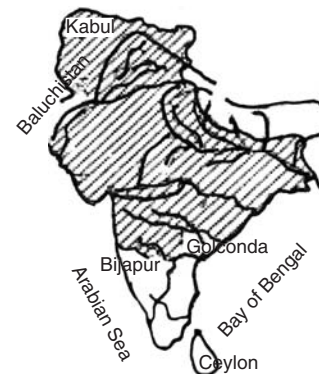
77. Consider the following statements:

1. Tapeworm is a hermaphrodite
2. Round-worm has separate sexes
3. Filaria is caused by a nematode
4. Guinea-worm is an annelid

Which of these are correct?

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

78. The shaded area in the above map shows the empire of



- (a) Ala-ud-din Khilji
- (b) Mohammad Tughlaq
- (c) Shahjahan
- (d) Aurangzeb

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

List I (Characteristic)	List II (Particle)
A. Zero mass	1. Position
B. Fractional charge	2. Neutrino
C. Fractional spin	3. Quark
D. Integral spin	4. Phonon

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

80. Consider the following statements regarding Reserve Bank of India:

1. It is a banker to the Central Government
2. It formulates and administers monetary policy
3. It acts as an agent of the Government in respect of India's membership of IMF
4. It handles the borrowing programme of Government of India

Which of these statements are correct?

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

81. Consider the following statements:

1. Most magmas are a combination of liquid, solid and gas
2. Water vapour and carbon dioxide are the principal gases dissolved in magma
3. Basaltic magma is hotter than the silicic magma
4. The magma solidified between sedimentary rocks in a horizontal position is known as dike

Which of these statements are correct?

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

82. Consider the following scheme launched by the Union Government:

1. Antyodaya Anna
2. Gram Sadak Yojana
3. Sarvapriya
4. Jawahar Gram Samridhi Yojana

Which of these were announced in the year 2000?

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

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

List I (Book)	List II (Author)
A. <i>The Struggle in My Life</i>	1. Lech Walesa
B. <i>The Struggle and the Triumph</i>	2. Nelson Mandela
C. <i>Friends and Foes</i>	3. Leonid Brezhnev
D. <i>Rebirth</i>	4. Zulfikar Ali Bhutto
	5. Sheikh Mujibur Rehman

Codes:

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

84. Which one of the following is the correct sequence in increasing order of molecular weights of the hydrocarbons?

- (a) Methane, ethane, propane and butane
- (b) Propane, butane, ethane and methane
- (c) Butane, ethane, propane and methane
- (d) Butane, propane, ethane and methane

85. Which organelle in the cell, other than nucleus, contains DNA?

- (a) Centriole
- (b) Golgi apparatus
- (c) Lysosome
- (d) Mitochondrion

86. Hoysala monuments are found in

- (a) Hampi and Hospet
- (b) Halebid and Belur
- (c) Mysore and Bangalore
- (d) Sringeri and Dharwar

87. Consider the following statements regarding the earthquakes:

1. The intensity of earthquake is measured on Mercalli Scale
2. The magnitude of an earthquake is a measure of energy released
3. Earthquake magnitudes are based on direct measurements of the amplitude of seismic waves
4. On the Richer Scale, each whole number demonstrates a hundredfold increase in the amount of energy released

Which of these statements are correct?

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

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

List I (Achievement in genetics)	List II (Scientists)
A. Discovery of transduction and conjugation in bacteria	1. Khurana
B. Establishing the sex-linked inheritance	2. Kornberg
C. Isolation of DNA polymerase from <i>E. Coli</i>	3. Lederberg
D. Establishing the complete genetic code	4. Morgan
	5. Ochoa

Codes:

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

89. Which Article of the Constitution provides that it shall be the endeavour of every state to provide adequate facility for instruction in the mother tongue at the primary stage of education?

- (a) Article 349
- (b) Article 350
- (c) Article 350A
- (d) Article 351

90. "Athlete's Foot" is a disease caused by

- (a) Bacteria
- (b) Fungus
- (c) Protozoan
- (d) Nematode

91. In the eye donation, which part of the eye is transplanted from the donor?

- (a) Cornea
- (b) Lens
- (c) Retina
- (d) The whole eye

92. Who among the following Indian rulers established embassies in foreign countries on modern lines?

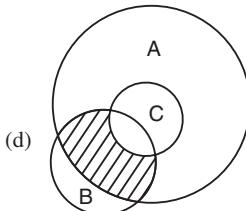
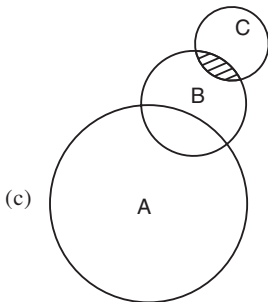
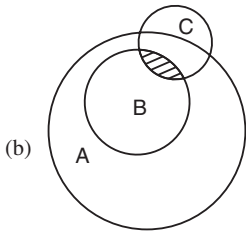
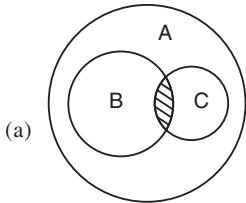
- (a) Haider Ali
- (b) Mir Qasim
- (c) Shah Alam II
- (d) Tipu Sultan

93. A great landslide caused by an earthquake killed hundreds of people in January 2001 near

- (a) San Salvador
- (b) San Jose
- (c) Managua
- (d) Guatemala City

94. Most guitarists are bearded males. If A represents all males, B represents bearded

males and C represents all male guitarists, then the correct diagram for their relation (shaded portion) is



95. In the above map, the black marks show the distribution of



- (a) Asbestos (b) Gypsum
(c) Limestone (d) Mica

96. Consider the following factors regarding an industry:

1. Capital investments
2. Business turnover
3. Labour force
4. Power consumption

Which of these determine the nature and size of the industry?

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

97. Which of the following pairs is *not* correctly matched?

- (a) India's first technicolour film — Jhansi Ki Rani
(b) India's first 3-D film — My Dear Kuttichathan
(c) India's first insured film — Taal
(d) India's first actress to win the Bharat Ratna — Meena Kumari

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

List I (Dancer)	List II (Dance)
A. Kalamandalam Kshemavaty	1. Kathakali
B. Kottakkal Sivaraman	2. Manipuri
C. Lakshmi Viswanathan	3. Mohiniattam
D. N Madhabi Devi	4. Bharatanatyam

Codes:

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

99. A man whose blood group is not known meets with a serious accident needs blood transfusion immediately. Which one of the blood groups mentioned below and readily available in the hospital will be safe for transfusion?

- (a) O, Rh⁻ (b) O, Rh⁺
(c) AB, Rh⁻ (d) AB, Rh⁺

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

List I (Bhakti saint)	List II (Profession)
A. Namdev	1. Barber
B. Kabir	2. Weaver
C. Ravidas	3. Tailor

- D. Sena 4. Cobbler

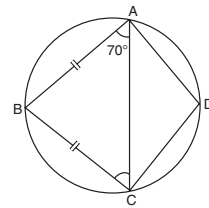
Codes:

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

101. Cloudy nights are warmer compared to clear cloudless nights, because clouds

- (a) prevent cold waves from the sky from descending on earth
(b) reflect back the heat given off by earth
(c) produce heat and radiate it towards earth
(d) absorb heat from the atmosphere and send it towards earth

102. In the above figure, ABCD is a cyclic quadrilateral, AB = BC and $\angle BAC = 70^\circ$, then $\angle ADC$ is



- (a) 40° (b) 80°
(c) 110° (d) 140°

103. Which one of the following weather conditions is indicated by a sudden fall in barometer reading?

- (a) Stormy weather
(b) Calm weather
(c) Cold and dry weather
(d) Hot and sunny weather

104. The most appropriate measure of a country's economic growth is its

- (a) Gross Domestic Product
(b) Net Domestic Product
(c) Net National Product
(d) Per Capita Real Income

105. The Supreme Court of India tenders advice to the President on a matter of law or fact

- (a) on its own initiative
(b) only if he seeks such advice
(c) only if the matter relates to the Fundamental Rights of citizens
(d) only if the issue poses a threat to the unity and integrity of the country

106. Falun Gong is

- (a) an ethnic minority in Eastern China

- (b) an insurgency outfit in Western China
 (c) a pro-democracy movement in China
 (d) a spiritual movement in China
107. "Metastasis" is the process by which
 (a) cells divide rapidly under the influence of drugs
 (b) cancer cells spread through the blood or lymphatic system to other sites or organs
 (c) the chromosomes in cell nuclei are attached to the spindle before moving to the anaphase poles
 (d) cancer cells are successfully inhibited to divide any further
108. The Hunter Commission was appointed after the
 (a) Black-hole incident
 (b) Jalianwalla Bag massacre
 (c) Uprising of 1857
 (d) Partition of Bengal
109. Who is the scientist in whose honour the "Chandra" X-ray telescope has been named?
 (a) Chandrasekhar Venkat Raman
 (b) Jagdish Chandra Bose
 (c) Parfulla Chandra Roy
 (d) Subramanyan Chandrasekhar
110. The mass of a body on earth is 100 kg (acceleration due to gravity, $g_e = 10 \text{ m/s}^2$). If acceleration due to gravity on the moon is $\left(\frac{g_e}{6}\right)$, then the mass of the body on the moon is
 (a) $\frac{100}{6}$ kg (b) 60 kg
 (c) 100 kg (d) 600 kg
111. Who amongst the following was the first to state that the earth was spherical?
 (a) Aristotle (b) Copernicus
 (c) Ptolemy (d) Strabo
112. Match List I with List II and select the correct answer using the codes given below the lists:

List I (Term)	List II (Explanation)
A. Fiscal deficit	1. Excess of Total expenditure over Total Receipts
B. Budget deficit	2. Excess of Revenue Expenditure over Revenue Receipts

- C. Revenue deficit 3. Excess of Total Expenditure over Total Receipts less Borrowings
 D. Primary deficit 4. Excess of Total Expenditure over Total Receipts less Borrowings and Interest Payments

Codes:

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

113. Consider the following organisations:
 1. International Bank for Reconstruction and Development
 2. International Finance Corporation
 3. International Fund for Agricultural Development
 4. International Monetary Fund
 Which of these are agencies of the United Nations?
 (a) 1 and 2 (b) 2 and 3
 (c) 3 and 4 (d) 1, 2, 3 and 4

114. In an atom, the order of filling up of the orbitals is governed by
 (a) Aufbau principle
 (b) Heisenberg's uncertainty principle
 (c) Hund's rule
 (d) Pauli's exclusion principle

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

List I (Person)	List II (Achievement)
A. Deep Sen Gupta	1. India's youngest Master in the Sangli International Chess Tournament, 2000
B. P Harikrishna	2. The first Indian ever to win a gold in discus in the World Junior Athletic Championship in Santiago, 2000

- C. Seema Antil 3. Won the title in the Asian Junior Chess Tournament in Mumbai, 2000
 D. Tejas Bakre 4. Won the under-12 title in the World Youth Chess Festival in Oropesa, 2000

Codes:

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

116. Under the Permanent Settlement, 1793, the Zamindars were required to issue pattas to the farmers which were not issued by many of the zamindars. The reason was
 (a) The Zamindars were trusted by the farmers
 (b) There was no official check upon the Zamindars
 (c) It was the responsibility of the British government
 (d) The farmers were not interested in getting pattas
117. If the stars are seen to rise perpendicular to the horizon by an observer, he is located on the
 (a) Equator
 (b) Tropic of Cancer
 (c) South Pole
 (d) North Pole
118. Match List I with List II and select the correct answer using the codes given below the lists:

List I (Person)	List II (Distinguished as)
A. Santosh Yadav	1. TV host
B. Oprah Winfrey	2. Journalist
C. Oscar Wilde	3. Mountaineer
D. P Sainath	4. Dramatist and Author

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

119. In the shaded area of the above map, the mean temperature for the month of July varies between



- (a) 25.5 °C–25.0 °C
 (b) 25.0 °C–27.5 °C
 (c) 27.5 °C–30.0 °C
 (d) 30.0 °C–32.5 °C
120. The Union Budget 2000 awarded a tax holiday for the north-eastern region to promote industrialisation for
- (a) 5 years (b) 7 years
 (c) 9 years (d) 10 years
121. Consider the following statements:
1. Arya Samaj was founded in 1835
 2. Lala Lajpat Rai opposed the appeal of Arya Samaj to the authority of Vedas in support of its social reform programmes
 3. Under Keshab Chandra Sen, the Brahmo Samaj campaigned for women's education
 4. Vinoba Bhave founded the Sarvodaya Samaj to work among refugees
- Which of these statements are correct?
- (a) 1 and 2 (b) 2 and 3
 (c) 2 and 4 (d) 3 and 4
122. An aqueous solution of copper sulphate is acidic in nature because the salt undergoes
- (a) dialysis (b) electrolysis
 (c) hydrolysis (d) photolysis
123. Consider the following taxes:
1. Corporation tax
 2. Customs duty
 3. Wealth tax
 4. Excise duty
- Which of these is/are indirect taxes?
- (a) 1 only (b) 2 and 4
 (c) 1 and 3 (d) 2 and 3
124. The Mongols under Gengis Khan invaded India during the reign of
- (a) Balban
 (b) Feroz Tughlaq
 (c) Iltutmish
 (d) Muhammad bin Tughlaq
125. Consider the following statements:
 A simple pendulum is set into oscillation. Then

1. the acceleration is zero when the bob passes through the mean position
 2. in each cycle the bob attains a given velocity twice
 3. both acceleration and velocity of the bob are zero when it reaches its extreme position during its oscillation
 4. the amplitude of oscillation of the simple pendulum decreases with time
- Which of these statements are correct?
- (a) 1 and 2 (b) 3 and 4
 (c) 1, 2 and 4 (d) 2, 3 and 4
126. Anand must be a vegetarian because he is a Buddhist. The argument assumes that
- (a) most Buddhists are vegetarian
 (b) all Buddhists are vegetarians
 (c) only Buddhists are vegetarians
 (d) most vegetarian are Buddhists
127. The high density of population in Nile Valley and Island of Java is primarily due to
- (a) intensive agriculture
 (b) industrialisation
 (c) urbanisation
 (d) topographic constraints
128. The largest share of Foreign Direct Investment (1997–2000) went to
- (a) Food and food-product sector
 (b) Engineering sector
 (c) Electronics and electric equipment sector
 (d) Services sector
129. Which one of the following duties is *not* performed by the Comptroller and Auditor General of India?
- (a) To audit and report on all expenditure from the Consolidated Fund of India
- (b) To audit and report on all expenditure from the Contingency Funds and Public Accounts
- (c) To audit and report on all trading, manufacturing, profit and loss accounts
- (d) To control the receipt and issue of public money, and to ensure that the public revenue is lodged in the exchequer
130. Consider the following statements with reference to the Periodic Table of chemical elements:
1. Ionisation potential gradually decrease along a period
 2. In a group of elements, election affinity decreases as the atomic weight increases

3. In a given period, electronegativity decreases as the atomic number increases

Which of these statements is/are correct?

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

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

List I (Substance)	List II (Physiological role)
A. Ptyalin	1. Converts angiotensinogen in blood into angiotensin
B. Pepsin	2. Digests starch
C. Renin	3. Digests proteins
D. Oxytocin	4. Hydrolyses fats
	5. Induces contraction of smooth muscles

Codes:

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

132. What one of the following pairs is correctly matched?

- (a) Harappan Painted Grey Ware Civilisation
 (b) The Kushans Gandhara of Art
 (c) The Mughals Ajantha Paintings
 (d) The Marathas Pahari School of Painting

133. A radioactive substance has a half-life of four months.

Three-fourth of the substance would decay in

- (a) 3 months (b) 4 months
 (c) 8 months (d) 12 months

134. The following table shows the percentage change in the consumption of electricity by five towns P, Q, R, S, T from 1986–88:

Per Cent Change		
Town	From	From
P	+ 8	– 8
Q	– 15	+ 11
R	+ 6	+ 9
S	– 7	– 5
T	+ 13	– 6

If town T consumed 500,000 units in 1986, how much did it consume in 1988?

- (a) 371,000 units (b) 531,100 units
(c) 551,100 units (d) 571,100 units

135. Consider the following statements made about the sedimentary rocks:

1. Sedimentary rock are formed at earth's surface by the hydrological system
2. The formation of sedimentary rock involves the weathering of pre-existing rocks
3. Sedimentary rocks contain fossils
4. Sedimentary rocks typically occur in layers

Which of these statements are correct?

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

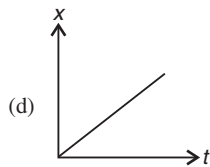
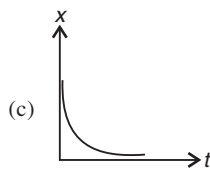
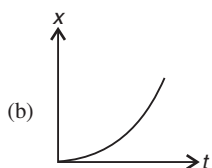
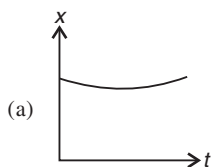
136. Match List I with List II and select the correct answer using the codes given below the lists

List I (Publisher)	List II (Publication)
A. Ministry of Industry	1. Report on Currency and Finance
B. Central Statistical Organisation	2. Economic Survey
C. Reserve Bank of India	3. Wholesale Price Index
D. Ministry of Fianance	4. National Accounts Statistics

Codes:

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

137. Which of the following distance-time graphs (x-t) represents one-dimensional uniform motion?



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

List I (Award/Prize)	List II (Recipient)
A. Indira Gandhi Prize for Peace, Disarmament and Development	1. Archbishop Dermond Tutu
B. Jannalal Bajaj Award	2. Dr Gurdev Khush
C. International Gandhi Peace Prize	3. Dr M S S Swaminathan
D. Wolf Prize	4. Nelson Mandela

Codes:

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

139. Which one of the following statements correctly describes the Fourth Schedule of the Constitution of India?

- It lists the distribution of powers between the Union and the states
- It contains the languages listed in the Constitution
- It contains the provisions regarding the administration of tribal areas
- It allocates seats in the Council of States

140. Epiphytes are plants which depend on other plants for

- food
- mechanical support
- shade
- water

141. Which among the following ports was called Babul Makka (Gate of Makka) during the Mughal Period?

- Calicut
- Broach
- Cambay
- Surat

142. A person travels from X to Y at a speed of 40 kmph and returns by increasing his speed by 50 per cent. What is his average speed for both the trips?

- 36 kmph
- 45 kmph
- 48 kmph
- 50 kmph

143. Volcanic eruptions do not occur in the

- Baltic Sea
- Black Sea
- Caribbean Sea
- Caspian Sea

144. Who among the following leaders proposed to adopt Complete Independence as the goal of the Congress in the Ahmedabad session of 1920?

- Abdul Kalam Azad
- Hasrat Mohani
- Jawaharlal Nehru
- Mohandas Karamchand Gandhi

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

List I (Sportsman)	List II (Sport)
A. Anjali Vedpathak	1. Athletics
B. Mouma Das	2. Gymnastics
C. Neelam Singh	3. Rifle Shooting
D. Tumpa Debnath	4. Table Tennis
	5. Chees

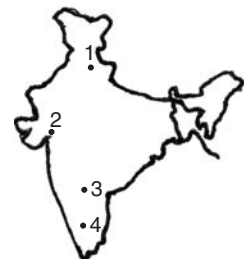
Codes:

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

146. A class of animals known as Marsupials is a characteristic feature of

- Africa
- Australia
- South America
- South-east Asia

147. The locations of the space organisation units have been marked in the given map as 1, 2, 3 and 4. Match these units with the list given below and select the correct answer using the codes given below the list:



A. ISRO B. IIRS
C. NRSA D. SAC

Codes:

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

148. Which of the following pairs is correctly matched?

- (a) Dewan-i-Bandagani ... Tughlaq
(b) Dewan-i-Mustakhraj ... Balban
(c) Dewan-i-Kohi ... Alauddin Khilji
(d) Dewan-i-Arz ... Muhammad Tughlaq

- (a) Limestone
(b) Obsidian
(c) Sandstone
(d) Shale

150. The earlier name of WHO was

- (a) UNCTAD (b) GATT
(c) UNIDO (d) OECD

149. Quartzite is metamorphosed from

ANSWERS

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