

Time : 1hr 40mins

Total Marks : 400

**Important Instructions :**

1. This Test contains 100 items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case, you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
2. You have to mark all your responses **ONLY** on the separate Answer Sheet provided.
3. All items carry equal marks.
4. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions.
5. Penalty for wrong answers:  
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
  - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to that question will be deducted as penalty.
  - (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to that question.
  - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

1. Which one of the following cell organelles does NOT possess nucleic acid ?
  - (a) Nucleolus
  - (b) Chloroplast
  - (c) Ribosome
  - (d) Plasma Membrane
2. Which one of the following cell organelles does NOT possess its own genetic material encoding proteins ?
  - (a) Ribosome
  - (b) Nucleus
  - (c) Mitochondria
  - (d) Chloroplast
3. Which one of the following is NOT a component of conducting tissue in plants ?
  - (a) Fibres
  - (b) Tracheids
  - (c) Pericycle
  - (d) Sieve tubes
4. Which one of the following organisms has vascular tissues ?
  - (a) *Cladophora*
  - (b) *Penicillium*
  - (c) *Marsilea*
  - (d) *Anabaena*
5. Which one of the following organisms represents the primary consumer category in an ecosystem ?
  - (a) Caterpillar
  - (b) Crabapple tree
  - (c) Frog
  - (d) Sparrowhawk
6. Spring tides refer to
  - (a) greatest difference in the sea level at high and low tides
  - (b) lowest difference in the sea level at high and low tides
  - (c) no difference in the sea level at high and low tides
  - (d) counteraction of gravitational pull of the Sun to that of Moon
7. Which one of the following energy is stored in the links between the atoms ?
  - (a) Nuclear energy
  - (b) Chemical energy
  - (c) Potential energy
  - (d) Thermal energy
8. The light energy escaping from the Sun can be spread by
  - (a) a shower of rain drops
  - (b) a plane mirror
  - (c) a convex lens
  - (d) a combination of a convex lens and a concave lens
9. The correct sequence of energy transfer that occurs when an apple falls to the ground is
  - (a) Gravitational potential energy → heat energy to air → kinetic energy → heat energy to ground and apple → sound energy
  - (b) Gravitational potential energy → sound energy → kinetic energy → heat energy to air → heat energy to ground and apple

- (c) Gravitational potential energy → kinetic energy → heat energy to air → heat energy to ground and apple → sound energy  
 (d) Gravitational potential energy → kinetic energy → sound energy → heat energy to air → heat energy to ground and apple
10. Which one of the following minerals is used as a fuel in nuclear power stations?  
 (a) Bauxite (b) Quartz  
 (c) Feldspar (d) Pitchblende
11. Which one of the following is NOT a synthetic detergent?  
 (a)  $\text{CH}_3(\text{CH}_2)_{10}\text{CH}_2\text{O SO}_3^- \text{Na}^+$   
 (b)  $[\text{CH}_3(\text{CH}_2)_{15} - \text{N} - (\text{CH}_3)_3]^+ \text{Br}^-$   
 (c)  $\text{CH}_3(\text{CH}_2)_{16}\text{COO}^- \text{Na}^+$   
 (d)  $\text{CH}_3(\text{CH}_2)_{16}\text{COO}(\text{CH}_2\text{CH}_2\text{O})_n\text{CH}_2\text{CH}_2\text{OH}$
12. Which one of the following is an example of a clean fuel?  
 (a) Coke (b) Propane  
 (c) Petrol (d) Wax
13. Which one of the following metals does NOT react with cold water?  
 (a) Calcium (Ca) (b) Potassium (K)  
 (c) Magnesium (Mg) (d) Sodium (Na)
14. In which of the following pairs are the ions isoelectronic?  
 (a)  $\text{Mg}^{2+}$ , Ar (b)  $\text{Na}^+$ ,  $\text{O}^{2-}$   
 (c)  $\text{Al}^{3+}$ ,  $\text{Cl}^-$  (d)  $\text{K}^+$ , Ne
15. Which one of the following is used as a binder in paints?  
 (a) Titanium dioxide (b) Novolac  
 (c) Phthalocyanine (d) Silicones
16. Which one of the following is NOT true in reference to Air mass?  
 (a) Air mass forms either in tropical or in polar region  
 (b) Air mass develops on continents as well as over ocean  
 (c) Air mass develops in a cyclonic condition  
 (d) Air mass changes the weather conditions
17. National Water Academy, a centre of excellence in training and capacity building in water resource, is located at  
 (a) New Delhi (b) Kolkata  
 (c) Pune (d) Chennai
18. "Campos" and "Llanos", Tropical Savanna grasslands are generally found in  
 (a) Australia (b) Central Africa  
 (c) South America (d) East Asia
19. "Viticulture" is a common feature of which one of the following Australian cities?  
 (a) Adelaide (b) Darwin  
 (c) Hobart (d) Brisbane
20. "Shamal" warm and dry wind is a "Local" wind found in  
 (a) East Asia (b) West Coast of Africa  
 (c) Sahara of Africa (d) Mesopotamia
21. "Inversion of Rainfall" is associated with  
 (a) Orographic rainfall  
 (b) Convictional rainfall  
 (c) Cyclonic rainfall (Tropical)  
 (d) Cyclonic rainfall (Temperate)
22. Who was the author of the book 'History of British India'?  
 (a) Charles Grant (b) John Stuart Mill  
 (c) James Mill (d) William Jones
23. The Azamgarh Proclamation of August 25, 1857 stressed on which one of the following issues?  
 (a) Hindu-Muslim divide  
 (b) Support to the English Government  
 (c) The return of the Badshahi  
 (d) The imposition of heavy Jumas (revenue demand)
24. Which Viceroy had made the observation, "It's a beautiful world if it wasn't for Gandhi ....."?  
 (a) Lord Irwin (b) Lord Wavell  
 (c) Lord Mountbatten (d) Lord Willingdon
25. Which Indian businessman favoured 'healthy capitalism' in helping Gandhiji to work towards a 'common object'?  
 (a) Ghanshyam Das Birla  
 (b) Ambalal Sarabhai  
 (c) Sir Biren Mookerjee  
 (d) T. T. K. Krishnamachari
26. The art piece "In Memoriam" was a creation of which one of the following European painters?  
 (a) Thomas Jones Barker  
 (b) Joseph Noel Paton  
 (c) Thomas Daniell  
 (d) Charles D'Oyly
27. Which one of the following can charge an insulator?  
 (a) Current electricity (b) Static electricity  
 (c) Magnetic field (d) Gravitational field

28. At 20° C, the speed of sound in water is approximately  
 (a) 330 m/s (b) 800 m/s  
 (c) 1500 m/s (d) 5000 m/s
29. Which one of the following could be the melting point of iron?  
 (a) 25°C (b) 37°C  
 (c) 500°C (d) 1500°C
30. Let us consider a copper wire having radius  $r$  and length  $l$ . Let its resistance be  $R$ . If the radius of another copper wire is  $2r$  and the length is  $l/2$  then the resistance of this wire will be  
 (a)  $R$  (b)  $2R$   
 (c)  $R/4$  (d)  $R/8$
31. Basic scientific principle behind a nuclear reactor is  
 (a) Nuclear fusion  
 (b) Controlled nuclear fusion  
 (c) Uncontrolled nuclear fission  
 (d) Controlled nuclear fission
32. Which one of the following statements is NOT correct for the given reaction?  
 $\text{Fe(s)} + \text{CuSO}_4(\text{aq}) \rightarrow \text{FeSO}_4(\text{aq}) + \text{Cu(s)}$   
 (a) Iron is the reducing agent  
 (b) The solution turns green in colour after the reaction  
 (c) Copper is a more reactive metal than iron  
 (d) The reaction is an example of a redox reaction
33. Which one of the following is an organic acid?  
 (a) Hydrochloric acid (b) Nitric acid  
 (c) Acetic acid (d) Sulphuric acid
34. Dinitrogen ( $\text{N}_2$ ) and dioxygen ( $\text{O}_2$ ) are the main constituents of air but they do not react with each other to form oxides of nitrogen because  
 (a) the reaction requires initiation by a catalyst  
 (b) oxides of nitrogen are unstable  
 (c) the reaction is endothermic and requires very high temperature  
 (d) the stoichiometry of  $\text{N}_2$  and  $\text{O}_2$  in air is not ideal for the reaction to take place
35. Who among the following has explained the phenomenon of photoelectric effect?  
 (a) Max Planck  
 (b) Albert Einstein  
 (c) Neils Bohr  
 (d) Ernest Rutherford
36. The equivalent weight of oxalic acid in  $\text{C}_2\text{H}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$  is  
 (a) 45 (b) 63  
 (c) 90 (d) 126
37. Which one of the following is NOT a west flowing river?  
 (a) Periyar (b) Bharatpuzha  
 (c) Pamba (d) Tamraparni
38. Which one of the following rivers was earlier known as "Vitasta"?  
 (a) Tista  
 (b) Jhelum  
 (c) Tungabhadra  
 (d) Bharatpuzha
39. River Sarada drains in the Northern Plains of Uttar Pradesh. Before entering in the Plains, Sarada is known as  
 (a) Saraswati (b) Bhagirathi  
 (c) Kali (d) Pindar
40. "Mission Indradhanush" is related to  
 (a) Bullet train project  
 (b) Agriculture development  
 (c) Women empowerment  
 (d) Full immunization
41. Which of the following is/are environmental effects of Rotation of the Earth?  
 (1) Daily or diurnal rhythm in daylight and air temperature  
 (2) Flow path of both air and water are turned consistently in a sideward direction  
 (3) The movement of the tides  
 Select the correct answer using the code given below:  
 (a) 1 and 2 only (b) 1 and 3 only  
 (c) 1, 2 and 3 (d) 3 only
42. Who among the following historians have described the Quit India movement as a 'spontaneous revolution'?  
 (a) Gordon Johnson  
 (b) David Arnold  
 (c) F G Hutchins  
 (d) Peter Robb  
 The following 3 (three) items consist of two statements, Statement I and Statement II. Examine these two statements carefully and select the correct answer using the code given below:

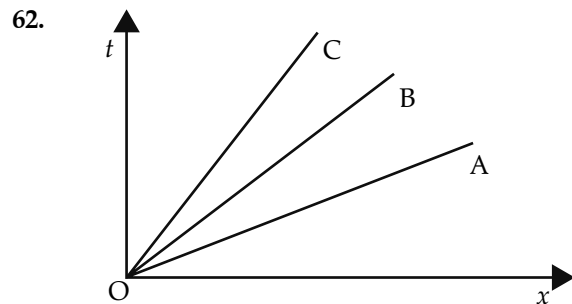
**Code:**

- (a) Both the statements are individually true and Statement II is the correct explanation of Statement I  
 (b) Both the statements are individually true and Statement II is NOT the correct explanation of Statement I  
 (c) Statement I is true but Statement II is false  
 (d) Statement I is false but Statement II is true
43. **Statement I** : Abul Fazl shaped, represented and articulated the ideas associated with the reign of Akbar  
**Statement II** : The qualities of Abul Fazl impressed Akbar who found the former suitable as an adviser and spokesperson for his policies
44. **Statement I** : The Kisan manifesto adopted by the All India Kisan Sabha in August 1936 contained radical demands  
**Statement II** : The All India Kisan Sabha was a part of the Congress and maintained close relationship with the Provincial Congress Committees
45. **Statement I** : The British ruled India through a modern bureaucracy headed by the Indian Civil Service, whose members were recruited through merit based on open competition  
**Statement II** : The Indian Civil Service was based on the whole hearted participation of Indians
46. Two metallic wires A and B are made using copper. The radius of wire A is  $r$  while its length is  $l$ . A dc voltage  $V$  is applied across the wire A, causing power dissipation,  $P$ . The radius of wire B is  $2r$  and its length is  $2l$  and the same dc voltage  $V$  is applied across it causing power dissipation  $P_1$ . Which one of the following is the correct relationship between  $P$  and  $P_1$  ?  
 (a)  $P = 2P_1$   
 (b)  $P = P_1/2$   
 (c)  $P = 4P_1$   
 (d)  $P = P_1$
47. Consider the following statements about a solenoid:  
 (1) The magnetic field strength in a solenoid depends upon the number of turns per unit length in the solenoid.  
 (2) The magnetic field strength in a solenoid depends upon the current flowing in the wire of the solenoid.  
 (3) The magnetic field strength in a solenoid depends upon the diameter of the solenoid.  
 Which of the statements given above are correct?  
 (a) 1, 2 and 3                      (b) 1 and 3 only  
 (c) 2 and 3 only                    (d) 1 and 2 only
48. Light year is a unit of measurement of  
 (a) very large distances  
 (b) time interval in years  
 (c) amount of light received on earth in a year  
 (d) mass of atoms
49. The focal length of the objective lens of a telescope is 50 cm. If the magnification of the telescope is 25, then the focal length of the eye-piece is  
 (a) 12.5 cm                          (b) 5 cm  
 (c) 2 cm                                (d) 10 cm
50. Which one of the following forces is non-central and non-conservative?  
 (a) Frictional force                (b) Electric force  
 (c) Gravitational force          (d) Mechanical force
51. On exposure to moist air, copper gains a green coat on its surface due to formation of which one of the following compounds?  
 (a) Copper carbonate            (b) Copper oxide  
 (c) Copper sulphate              (d) Copper nitrate
52. Which one of the following will NOT produce carbon dioxide on reacting with an aqueous solution of hydrochloric acid?  
 (a) Limestone  
 (b) Quick Lime  
 (c) Chalk  
 (d) Marble
53. Which one of the following substances is NOT a mixture?  
 (a) Ice  
 (b) Ice-cream  
 (c) Air  
 (d) Honey

54. Which one of the following is an example of Salt-Crystal growth?
- Chemical weathering
  - Physical weathering
  - Biological weathering
  - Bio-chemical weathering
55. Which one of the following is the correct sequence of proved coal reserves in the Indian States in decreasing order?
- Jharkhand, Chhattisgarh, Odisha, West Bengal
  - Jharkhand, Odisha, Chhattisgarh, West Bengal
  - Odisha, West Bengal, Jharkhand, Chhattisgarh
  - Odisha, Chhattisgarh, West Bengal, Jharkhand
56. Consider the following statements relating to Richter scale:
- It was devised in 1935 by Charles F Richter
  - It describes the quantity of energy released by a single earthquake
  - Richter Scale has no upper limit
- Which of the statements given above is/are correct?
- 1 only
  - 1 and 2 only
  - 2 and 3 only
  - 1, 2 and 3
57. Which one of the following ocean currents is NOT a cold ocean current?
- Canary current
  - California current
  - Kuroshio current
  - Oyashio current
58. What is the time gap in occurrence of two successive tides at a given place on the ocean surface?
- 12 hours
  - 12 hours 26 minutes
  - 24 hours
  - 24 hours 52 minutes
59. Tooth enamel is made up of which one of the following calcium compounds?
- Calcium carbonate
  - Calcium sulphate
  - Calcium hydroxide
  - Calcium phosphate
60. Suppose there are two planets, 1 and 2, having the same density but their radii are  $R_1$  and  $R_2$  respectively, where  $R_1 > R_2$ . The accelerations

due to gravity on the surfaces of these planets are related as

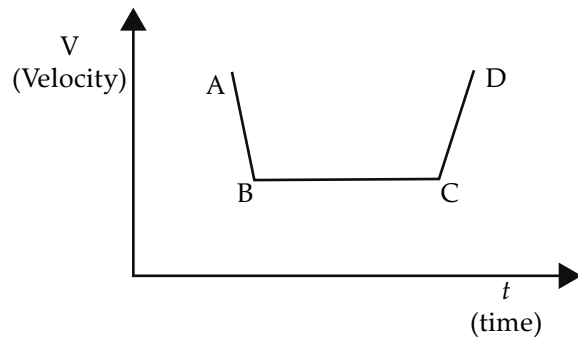
- $g_1 > g_2$
  - $g_1 < g_2$
  - $g_1 = g_2$
  - Can't say anything
61. The Sun is seen little before it rises and for a short while after it sets. This is because of
- total internal reflection
  - atmospheric refraction
  - apparent shift in the direction of Sun
  - dispersion



The figure shown above gives the time ( $t$ ) versus position ( $x$ ) graphs of three objects A, B and C. Which one of the following is the correct relation between their speeds.  $V_A$ ,  $V_B$  and  $V_C$ , respectively at any instant ( $t > 0$ )?

- $V_A < V_B < V_C$
  - $V_A > V_B > V_C$
  - $V_A = V_B = V_C \neq 0$
  - $V_A = V_B = V_C = 0$
63. 1 dyne (a unit of force in CGS system) equals to
- $10^3 \text{ g cm/s}^2$
  - $10^{-3} \text{ g cm/s}^2$
  - $10^5 \text{ kg m/s}^2$
  - $10^{-5} \text{ kg m/s}^2$

64.



In the given velocity ( $V$ ) versus time ( $t$ ) graph, accelerated and decelerated motions are respectively represented by line segments

- CD and BC
- BC and AB
- CD and AB
- AB and CD

65. Which one of the following statements regarding a thermos flask is NOT correct?
- (a) The walls of flask are separated by vacuum and made of glass which is a poor conductor of heat.
  - (b) The glass walls themselves have shiny surfaces.
  - (c) The surface of inner wall radiates good amount of heat and the surface of outer wall absorbs some of the heat that is radiated from the inner wall.
  - (d) The cork supports are poor conductors of heat.
66. 'Black hole' is a
- (a) huge black star which has zero acceleration due to gravity on its surface
  - (b) star which has moderate acceleration due to gravity on its surface
  - (c) star which has collapsed into itself and has large acceleration due to gravity on its surface
  - (d) star which has collapsed into itself and has zero acceleration due to gravity on its surface
67. The formula for conversion between Fahrenheit and Celsius is  
 $^{\circ}\text{F} = X + (1.8 \times ^{\circ}\text{C})$   
'What is factor X?
- (a) 32
  - (b) 22
  - (c) 98
  - (d) 42
68. When a beam of white light passes through a glass prism, the colour of light beam that deviates the least is
- (a) Blue
  - (b) Red
  - (c) Green
  - (d) Violet
69. LIGO stands for
- (a) Laser Interferometer Gravitational wave Observatory
  - (b) Light Interferometer Gravitational wave Observatory
  - (c) Light Induced Gravity Observatory
  - (d) Laser Induced Gaseous Optics
70. A fuse wire must be
- (a) conducting and of low melting point
  - (b) conducting and of high melting point
  - (c) insulator and of high melting point
  - (d) insulator and of low melting point
71. Karnarajar Port was commissioned in 2001 to handle thermal coal requirements. It is situated along the coast of which Indian State?
- (a) Andhra Pradesh
  - (b) Odisha
  - (c) Tamil Nadu
  - (d) Karnataka
72. Which one of the following Union Territories of India is the smallest in terms of geographical area?
- (a) Daman and Diu
  - (b) Chandigarh
  - (c) Dadra and Nagar Haveli
  - (d) Lakshadweep
73. Which one of the following can be said to be essentially related to 'Polar Front Theory'?
- (a) Anticyclone
  - (b) Tropical Cyclone
  - (c) Temperate Cyclone
  - (d) Inter Tropical Convergence
74. Brahmaputra and Indus rivers are antecedent rivers. Which one of the following may be the true definition of an antecedent drainage?
- (a) Which follows the initial slope of the Himalaya
  - (b) Which existed before the Himalayan range came into existence
  - (c) Which followed the dip or rock beds of the Himalaya
  - (d) Which followed the strikes of rock beds of the Himalaya
75. The Karachi resolution of Congress in 1931 advocated which one of the following issues?
- (a) State shall not own or control key industries and services
  - (b) State shall handover the key industries and services to the Indian business groups
  - (c) State should allow the Indian business group, to invest fifty per cent of the capital
  - (d) State shall own or control key industries and services
76. The treaty of Schonbrunn (1809) was signed after which one of the following battles?
- (a) Battle of Austerlitz
  - (b) Battle of Tilsit
  - (c) Battle of Wagram
  - (d) Battle of Lisbon

77. Which of the following statements about The New Model Unions is/are correct?
- The New Model Unions were formed in the 1850s
  - The New Model Unions were formed in the 1880s
  - The New Model Unions comprised a Labour Party idea
  - The New Model Unions excluded women in the 1920s
- Select the correct answer using the code given below:
- |             |            |
|-------------|------------|
| (a) 1       | (b) 2      |
| (c) 3 and 4 | (d) 3 only |
78. The Truman Doctrine of 1947 was announced to achieve which one of the following?
- Containment of the USSR
  - Increasing agricultural production in the USA
  - Offering friendship to Europe
  - Strengthening the UNO
79. Which of the following statements is/are correct?
- In 1948, Burma was admitted to the United Nations and immediately supported the USA in the Cold War
  - In 1948, Burma joined the United Nations but refused to denounce China as the aggressor in the Korean War
- Select the correct answer using the code given below:
- |                  |                     |
|------------------|---------------------|
| (a) 1 only       | (b) 2 only          |
| (c) Both 1 and 2 | (d) Neither 1 nor 2 |
80. Who among the following presented 'The April Theses' to the Russian people in 1917?
- Stalin
  - Trotsky
  - Bukharin
  - Lenin
81. An Election Commissioner can be removed from office on the recommendation of
- The Chief Justice of India
  - The Chief Election Commissioner
  - The President of India
  - The Parliament
82. Which one of the following statements regarding the Rajya Sabha is NOT correct?
- Its members are elected by the elected members of the Legislative Assembly of a State
  - The election follows the system of proportional representation by means of a single transferable vote
  - 1/3<sup>rd</sup> of its members retire after every two years
  - It is a permanent body, but can be dissolved earlier by the President
83. Fundamental right guaranteed under which one of the following Articles of the Constitution of India is available only to the citizens of India?
- |                |                |
|----------------|----------------|
| (a) Article 19 | (b) Article 20 |
| (c) Article 21 | (d) Article 22 |
84. The treaty of Yandabo was signed in
- |          |          |
|----------|----------|
| (a) 1826 | (b) 1825 |
| (c) 1824 | (d) 1823 |
85. In the Manusmriti which form of marriage results from the "Voluntary union of a maiden and her lover"?
- |                  |                |
|------------------|----------------|
| (a) Eighth form  | (b) Fifth form |
| (c) Seventh form | (d) Sixth form |
86. Consider the following description of the Samadhi of a former Prime Minister of India: Central Samadhi platform comprises nine square black polished granite solid stone blocks, capped with a 'Diya' in the centre. The number nine holds significance and represents the navarasas, navaratras and navagrahas. Then placement of the nine-square Samadhi is in a circular lotus shaped pattern. The nine-square platform is accessed in four cardinal directions by pathways made in white composite tiles so that the floor does not get heated.
- Identify the Samadhi:
- |                  |                |
|------------------|----------------|
| (a) Shakti Sthal | (b) Shantivan  |
| (c) Sadaiv Atal  | (d) Veer Bhumi |
87. IMBEX is a joint exercise conducted regularly between Armies of India and
- |               |              |
|---------------|--------------|
| (a) Malaysia  | (b) Maldives |
| (c) Mauritius | (d) Myanmar  |
88. Who among the following was awarded the Hindu Prize in Fiction category for the year 2018?
- |                        |                    |
|------------------------|--------------------|
| (a) Neelum Saran Gour  | (b) N Kalyan Raman |
| (c) Manoranjan Byapari | (d) Arunav Sinha   |
89. Who among the following was appointed as head of the seven member committee to look into revenue shortfall being faced by the states

- after the GST roll-out in India and suggest steps for augmenting collections?
- (a) Himanta Biswa Sharma  
(b) Thomas Isaac  
(c) Sushil Modi  
(d) Capt Abhimanyu
90. The 15<sup>th</sup> Pravasi Bharatiya Divas, 2019 was held in  
(a) New Delhi (b) Gandhi Nagar  
(c) Prayagraj (d) Varanasi
91. Which one of the following cities was named by UNESCO as World Capital of Architecture for 2020?  
(a) Tokyo (b) Johannesburg  
(c) Rio de Janeiro (d) New Delhi
92. Who among the following was named ICC's emerging player of the year 2018?  
(a) Rishabh Pant  
(b) Josh Hazlewood  
(c) Hasan Ali  
(d) Mustafizur Rahman
93. India's first private sector Howitzer gun-making unit is located at  
(a) Jamshedpur (b) Kolkata  
(c) Hazira (d) Gwalior
94. Which of the following pairs of old names and new names of islands in India is/are correctly matched?  
(1) Ross Island : Shaheed Dweep  
(2) Neil Island : Netaji Subhas Chandra Bose Dweep  
(3) Havelock Island : Swaraj Dweep  
Select the correct answer using the code given below:  
(a) 1, 2 and 3 (b) 2 and 3 only  
(c) 1 and 2 only (d) 3 only
95. Who among the following was posthumously conferred with the Ashoka Chakra, India's highest peacetime gallantry award, in 2019?  
(a) Jyoti Prakash Nirala  
(b) Nazir Ahmad Wani  
(c) Hangpan Dada  
(d) Mohan Nath Goswami
96. As per the code of the nomenclature, which one of the following is the correct way of writing a biological name?  
(a) Amoeba Proteus (b) *Amoeba proteus*  
(c) amoeba proteus (d) amoeba Proteus
97. Which one of the following statements regarding Electrocardiogram is correct?  
(a) Electrocardiogram is graphical representation of electrical activity of cornea.  
(b) Electrocardiogram is graphical representation of activity of kidney.  
(c) Electrocardiogram is graphical representation of activity of brain.  
(d) Electrocardiogram is graphical representation of electrical activity of heart.
98. Which one of the following statements regarding Penicillin is correct?  
(a) Penicillin resistant bacteria can store this antibiotic in vacuole.  
(b) Penicillin resistant bacteria can degrade this antibiotic by an enzyme called  $\beta$ -lactamase.  
(c) Penicillin resistant bacteria can degrade this antibiotic by an enzyme called lactic acid dehydrogenase.  
(d) Penicillin is not absorbed by bacteria; so most bacteria are resistant.
99. Which one of the following organelles of mammalian cell is rich in hydrolytic enzymes?  
(a) Mitochondria (b) Ribosomes  
(c) Lysosome (d) Nucleus
100. Which one of the following statements regarding Cholera is correct?  
(a) Cholera is a disease that causes loss of memory.  
(b) Cholera is a disease of muscles due to consumption of alcohol.  
(c) Cholera is a disease due to consumption of contaminated food or water.  
(d) Cholera is a genetic disease.





## Answers

Q No	Answer Key	Topic Name	Chapter Name
1	(d)	Plasma Membrane	Cell
2	(a)	Ribosomes	Cell
3	(c)	Vascular Tissues	Plant Anatomy
4	(c)	Algae & Fungi	Plant Kingdom
5	(a)	Ecological Pyramid	Ecosystem
6	(a)	Tides	Ocean Currents and Tides Atmosphere and its composition
7	(b)	Atoms	Elementary ideas about the structure of Atom
8	(a)	Scattering	Ray Optics
9	(c)	Energy	Work, Energy and Power
10	(d)	Nuclear Reactor	Nuclear Reactions and Radioactivity
11	(c)	Soaps and Detergents	Some Important Chemical Compounds
12	(b)	Chemical Properties of Alkanes	Hydrocarbons
13	(c)	Reactivity of Metals with Water	Metals and Non-Metals
14	(b)	Isoelectronic Species	Structure of Atom
15	(d)	Paints	Some Important Chemical Compounds
16	(c)	Air	Properties of Air and Water
17	(c)	Headquarters	Current Affairs
18	(c)	Natural vegetation.	Major Natural regions of the World
19	(a)	distribution of agriculture	Major Natural regions of the World
20	(d)	Local Winds	Winds
21	(a)	Rainfall	Types of Climates
22	(c)	Books and Author	Current Affairs
23	(a)	Azamgarh Proclamation	Freedom Movement in India
24	(d)	Viceroy	Viceroy and Governor Generals
25	(a)	Capitalism	Basic Teachings of Mahatma Gandhi
26	(b)	Art and Culture	Current Affairs
27	(b)	Charge	Electrostatics
28	(c)	Sound	Waves
29	(d)	Latent Heat	Thermal Properties of Matter
30	(d)	Resistance	Current Electricity
31	(d)	Nuclear Reaction	Nuclei
32	(c)	Reactivity of Metals	Redox Reactions
33	(c)	Organic Acid	Acids
34	(c)	Composition of Air	Environmental Chemistry
35	(b)	Photoelectric Effect	Structure of Atom
36	(b)	Basicity of Acids	Atomic Mass and Equivalent Mass
37	(d)	Rivers	Current Affairs
38	(b)	Rivers	Current Affairs

Q No	Answer Key	Topic Name	Chapter Name
39	(c)	Rivers	Current Affairs
30	(d)	Government Schemes	Current Affairs
41	(c)	Rotation of Earth	The Earth, its shape and size
42	(c)	Quit India Movement	Basic Teachings of Mahatma Gandhi
43	(a)	Abul Fazal	Mughal Dynasty
44	(b)	All India Kisan Sabha	Indian National Congress
45	(c)	Indian Civil Service	Indian National Congress
46	(b)	Electric Power	Current Electricity
47	(d)	Solenoid	Magnetic Effect of Electric Current
48	(a)	Units	Units and Measurements
49	(c)	Optical Instruments	Ray Optics
50	(a)	Force	Laws of Motion
51	(a)	Rusting of Metals	Redox Reactions
52	(b)	Quicklime	Some Important Chemical Compounds
53	(a)	Mixture	Elements, Compounds and Mixtures
54	(b)	Weathering	Temperature and Atmospheric Pressure
55	(b)	Coal	Current Affairs
56	(d)	Earthquakes	Earthquakes and Volcanoes
57	(c)	Ocean Currents and Tides Atmosphere and its composition	Geography
58	(b)	Ocean Currents and Tides Atmosphere and its composition	Geography
59	(d)	Compounds	Elements, Compounds and Mixtures
60	(a)	Gravity	Gravitation
61	(b)	Atmospheric Refraction	Ray Optics
62	(b)	Graphical Representation of Motion	Motion
63	(d)	Units	Units and Measurements
64	(c)	Graphical Representation of Motion	Motion
65	(c)	Thermo Flask	Thermodynamics
66	(c)	Black Body	Thermal Properties of Matter
67	(a)	Fundamental Units - Temperature	Some Basic Concepts of Chemistry
68	(b)	Dispersion	Ray Optics
69	(a)	Gravitational Force	Gravitation
70	(a)	Fuse	Current Electricity
71	(c)	Port	Current Affairs
72	(d)	Union Territories	Current Affairs
73	(c)	Polar Front Theory	Physical Properties and States of Matter

Q No	Answer Key	Topic Name	Chapter Name
74	(b)	Rivers	Regional Geography of India
75	(d)	Karachi Resolution	Indian National Congress
76	(c)	Wars	Forces shaping the modern world
77	(a)	Labour Party	Forces shaping the modern world
78	(a)	Truman Doctrine	Forces shaping the modern world
79	(b)	Burma	Forces shaping the modern world
80	(d)	Industrial Revolution and Russian Revolution	Russian Revolution
81	(b)	Election Commissioner	Election Commission
82	(d)	Rajya Sabha	Indian Parliament
83	(a)	Fundamental Rights	Elementary study of Indian Constitution and Administration
84	(a)	Treaty of Yandabo	Forces shaping the modern world
85	(d)	Manusmriti	A broad survey of Indian History
86	(c)	Prime Minister	Elementary study of Indian Constitution and Administration
87	(d)	Joint Military Exercise	Current Affairs
88	(a)	Awards	Current Affairs
89	(c)	Appointments	Current Affairs
90	(d)	Important Days	Current Affairs
91	(c)	Important Cities	Current Affairs
92	(a)	Sports	Current Affairs
93	(c)	Important Cities	Current Affairs
94	(d)	Islands	Current Affairs
95	(b)	Awards	Current Affairs
96	(b)	Biological Names	Biological Classification
97	(d)	Electrocardiogram	Blood Circulation
98	(b)	Antibodies	Microbes
99	(c)	Lysosomes	Cell
100	(c)	Communicable Disease	Human Disease