



RAMAN SPACE MANTHAN

2025-26

Standard:- VII

Name:- _____

Std:- _____

Roll no:- _____

School Name:- _____

INSTRUCTIONS

- There will be 3 sections
- Physics: 40 Questions
- Chemistry: 30 Questions
- Biology: 30 Questions
- Total questions 100 each carries 4 mark.
- Total exam time 2 hour.
- Don't mark anything on the question paper

➤ PHYSICS

1. How much amount of heat is required to raise the temperature of 100 g of water from 30°C to 100°C ? The specific heat of water = $4.2\text{J g}^{-1}\text{ }^{\circ}\text{C}^{-1}$.
A. 25.5 kJ B. 29.4 kJ C. 30 kJ D. 40 kJ
2. Arrange the following steps in sequential order to show that the conduction of heat is different in different conductors.
 1. Take two identical rods one is copper and the other is iron.
 2. The ends of the two rods are heated with the same spirit-lamp.
 3. Fix some nails on the rods with the help of wax at equal distance.
 4. The nails near to the flame falls first from the copper rod and then from the iron rod.A. 1342 B. 1234 C. 1324 D. 1423
3. For the certain engineering application, it is required to raise the temperature of a given mass of a body as quickly as possible. The material should have
A. high specific heat capacity C. low specific heat capacity
B. low specific heat capacity D. heat capacity
4. A brass ring is tightly fitted over an iron cylinder. To loosen the ring, the system must be
A. Heated C. at first heated then cooled
B. Cooled D. none of these
5. The temperature of body is raised by 40°C , the corresponding increase in Fahrenheit scale is
A. 40°F B. 42°F C. 104°F D. 72°F
6. Two solids object -1 and 2 are lying in a room for many days. The conditions surrounding both the object were the same. Raju touched object 1 with his left hand and it felt cold to touch. Then he touched object 2 with his right hand and felt warm to the touch .
If object 1 comes with object 2, will there be heat transfer?
A. Yes, heat will be transferred from object 1 to object 2
B. Yes, heat will be transferred from object 2 to object 1
C. No, there will be no heat transfer between the objects
D. We cannot say based on the given information.

7. What can be predicted if a high-pressure system moved out of a place and a low-pressure system moved in to replace it?
- A. There will be no winds at all
 - B. Wind will flow outwards from this area
 - C. Wind will flow towards this area
 - D. Pressure does not affect wind
8. Blowing up thatched roofs is an application of
- A. Bernoulli's principle
 - B. Pascal's law
 - C. Boyle's law
 - D. Archimedes principle
9. Which location on earth receives the most solar radiation in any given year?
- A. The poles
 - B. The oceans
 - C. The tropics
 - D. The continent
10. What describes the deflection of wind currents due to Earth's rotation?
- A. Trade winds
 - B. Coriolis effect
 - C. Greenhouse effect
 - D. Westerlies
11. Which of the following best describes the force of atmospheric pressure on a blimp or an inflated balloon used for advertisement?
- A. Presses on the top
 - B. Presses on all sides
 - C. Presses on the left top and bottom
 - D. Presses on the left and right
12. Cyclones affect
- A. Agriculture
 - B. Transport
 - C. Communication & electricity
 - D. All of these
13. Which of the following is not in uniform motion?
- (i) A bullet travelling with a constant speed in a straight line.
 - (ii) A swinging of earth.
 - (iii) The rotation of earth.
- A. (i) and (ii) only
 - B. (ii) and (iii) only
 - C. (iii) and (i) only
 - D. (i), (ii) and (iii)
14. Which of the following is NOT matched correctly?
- A. Speedometer : Speed
 - B. Odometer : Odour
 - C. Anemometer : Wind speed
 - D. Stopwatch : Time
15. An electric motor winds 200 turns of a thin copper wire on a uniform rod of diameter 10 cm in 2 seconds. Then the length of the wire that is wound over the rod in one second is _____ m.
- A. 30
 - B. 10π
 - C. 20π
 - D. None of these

16. A bus covers a distance of 250 km from Delhi to Jaipur towards West in 5 hours in the morning and returns to Delhi in the evening covering the same distance of 250 km in the same time of 5 hours. Find
(1) Average speed and (B) average velocity of the bus for the whole journey.
- A. 50 km/h, 100km/h C. 0, 50 km/h
B. 0, 50 km/h D. 50 km/h, 50 km/h
17. A body projected upward from the top a building is an example of ____.
- A. Uniform motion C. periodic motion
B. Non-uniform motion D. oscillatory motion
18. Mohan takes 20 minutes to cover a distance of 3.2 kilometres due north on a bicycle, his velocity in kilometres/ hour
- A. 8.1 B. 9.6 C. 1.2 D. 7.2
19. A switch is something that is used in a circuit to allow the flow of current by completing the circuit or to stop the flow of current by creating a gap in it. Which of the following is an ESSENTIAL characteristic of the switch in order to allow the electricity to flow through the circuit?
- A. It must be made only of rubber
B. It must be made only of plastic
C. It can be made of any material, but must be flexible like a wire
D. It can be made of any material, but must be good conductor of electricity
20. Two lamps X and Y are connected in series. The lamp X glows less bright than Y. Then
- A. The resistance of X is greater than the resistance of Y
B. The resistance of X is lesser than the resistance of Y
C. The resistance of X is equal to the resistance of Y
D. There is no relation between the resistance of X and Y
21. 25 coulombs of charge is brought from infinity to a given point in an electric field when 75 joule of work is done. What is the potential at the point?
- A. 3.0 volts B. 2.0 volts C. 4.0 volts D. 5.0 volts
22. The potential difference applied at the ends of a given conductor is doubled. Then the resistance of the conductor
- A. Remains constant C. Get doubled
B. Get halved D. Gets quadrupled

23. Magnetic field in an electromagnet can be increased by.
- A. Increasing the current through coil
 - B. Increasing number of turns of the coil
 - C. Decreasing the current through coil
 - D. Both (A) and (B)
24. Electrician appliances are rubber hand gloves while working with electricity because rubber is
- A. Conductor
 - B. Insulator
 - C. Resister
 - D. All of these
25. A ray of light strikes a plane mirror. If the angle between the incident and mirror is 60° , what is the angle of incident?
- A. 20°
 - B. 60°
 - C. 30°
 - D. 120°
26. If a mirror has a focal length of $+15\text{cm}$, it is a
- A. convex mirror
 - B. concave mirror
 - C. plane mirror
 - D. none of these
27. For an object at infinity, a concave mirror produces an image produces an image at its focus which is
- A. enlarged
 - B. virtual
 - C. virtual
 - D. real, inverted and diminished
28. The image formed by a slide projector on the screen is
- A. Real, inverted and diminished.
 - B. Virtual, upright and diminished.
 - C. Virtual, upright and magnified.
 - D. Real, inverted and magnified
29. In your study room, a plane mirror is fixed to the wall in front of you and opposite to that wall, a wall-clock is hanging in which only marking are there without numbers. You observe the time in the mirror as 7:10 hrs. Then that is actual time?
- A. 4:50 hrs
 - B. 7:10 hrs
 - C. 7:50 hrs
 - D. 5:50 hrs
30. Statement-1: The radius of curvature and focal length of convex mirror are 80cm and 40cm
Statement-2: The relation between radius of curvature and focal length is $R=2f$.
- A. Both statement 1 and 2 are correct
 - B. Both statement 1 and 2 are incorrect
 - C. Statement-1 is correct but statement-2 is incorrect
 - D. Statement-1 is incorrect but statement-2 is correct
31. Which of the following best describes the particles in matter?

- A. They are large in solids than in liquids or gases.
B. They are larger in gases than in solids or liquids.
C. They do not move in solids.
D. They are always vibrating.
32. Shyam wants his noodles to cool down very soon. He must put on a plate made of
A. Wood B. Ceramic C. Plastic D. Metal
33. Mercury is a convenient liquid to use in a barometer because
A. it is a metal.
B. it has a high boiling point.
C. it expands little with temperature.
D. it has high density.
34. Which would work against the development of a thunderstorm?
A. Rising air C. Moisture
B. Stable air D. Unstable air
35. Which of the following is not an example of regular motion?
A. A child on swing C. A mosquito flying in a room
B. An object moving in a circle D. A swinging pendulum
36. If a particle moves from one point to another along a straight line at a constant speed, then
A. Its velocity is constant
B. Its velocity may be constant
C. Its velocity must be constant
D. No conclusion can be drawn about its velocity
37. Electric charge can flow freely through
A. Insulator C. both conductor and insulator
B. Conductor D. Neither conductor nor insulator
38. Which is the odd one out?
A. Heater B. Electric iron C. Gases D. Electromagnet
39. An object that reflects some light and transmits some light is called
A. Coloured B. Opaque C. Most transparent D. None of these
40. A full-length image of a distance tall building can be seen by using
A. a concave mirror
B. a concave mirror
C. a plane mirror
D. both concave as well as plane mirror

➤ CHEMISTRY

41. The most abundant elements in the earth's crust is
A. Si B. C C. O D. Ca
42. Which of the following is insoluble in water?
A. Benzene B. Alcohol C. Acetic acid D. Sugar
43. In which part of India is jute grown?
A. Assam B. West Bengal C. Bihar D. All of these
44. The process of separation of broken woody pieces from fibers is called
A. ginning B. retting C. spinning D. scutching
45. Which of the following bacteria cause sorter's disease in sorter ?
A. Rhizobium B. Clostridium C. Anthrax D. Coliform
46. Silk was first discovered and then developed in
A. Japan B. Canada C. China D. India
47. The formula of oxalic acid is _____.
A. $(\text{COOH})_2$ B. 4COOH C. H_2CO_3 D. CH_3CHO
48. Which is used to remove hair from animal skin?
A. Calcium hydroxide B. Calcium oxide
C. Calcium carbonate D. Caustic soda
49. Which salt is used as fertilizer?
A. Plaster of Paris B. Potash alum C. Nitre D. Baking soda
50. According to Arrhenius acid gives
A. H^+ in water C. Both(A) and (B)
B. OH^- in water D. OH^- in acid medium
51. Which among the following acids is present in lemons?
A. Acetic acid B. Oleic acid C. Stearic acid D. Ascorbic acid
52. Glowing of an electric bulb is a _____ change.
A. physical C. both physical and chemical
B. chemical D. none of these
53. The metal which can displace zinc from its salt solution is
A. Mg B. Fe C. Pb D. Cu
54. A neutralization reaction is a _____.
A. decomposition reaction B. displacement reaction
C. combination reaction D. double displacement reaction
55. The specific heat capacity of water is
A. 1 calorie g^{-1} B. 10 calories g^{-1} C. 2 calories g^{-1} D. 30
calories g^{-1}
56. The chemical formula of magnesium hydrogen carbonate is
A. $\text{Mn}(\text{HCO}_3)_2$ B. $\text{Mg}(\text{HCO}_3)_2$ C. $\text{Mo}(\text{HCO}_3)_4$ D. $\text{Mg}(\text{HCO}_3)$

57. The colour of anhydrous copper sulphate is
A. red B. blue C. pink D. white
58. Who proved that water can be prepared by igniting two volumes of hydrogen
A. Robert Boyle B. Henry Cavendish C. Avogadro D. W.Ostwald
59. International decade for action on “water for life” by United Nation General Assembly was declared on
A. Jan , 26 B. March , 22 C. April , 14 D. none of these
60. Percentage of water in activated sludge is
A. 90 percentage C. 95 percentage
B. 92 percentage D. 97 percentage
61. The minimum depth in the soil where all the spaces are filled with water is called
A. saturation level C. ground water
B. infiltration D. water table
62. The last step in waste water treatment is a _____ process.
A. biological B. mechanical C. chemical D. physical
63. The activated sludge is about _____ water.
A. 96 percentage C. 94 percentage
B. 97 percentage D. 91 percentage
64. The fuel obtained by decomposing sludge is _____.
A. Biogas B. Petrol C. Diesel D. Kerosene
65. A rare and expensive fiber called cashmere is obtained from
A. camel B. rabbit C. goat D. sheep
66. The hair part of the fleece of sheep is called
A. kemp B. wool fiber C. grab D. none of these
67. Raw silk consist of
A. 35 individual silk fibers C. 48 individual silk fibers
B. 45 individual silk fibers D. none of these
68. Which of the following is a basic salt?
A. $\text{Ca}(\text{HCO}_3)_2$ B. $\text{Pb}(\text{OH})\text{NO}_3$ C. KHSO_3 D. NaHSO_4
69. Lemon juice will turn
A. phenolphthalein C. turmeric indicator red
B. red litmus D. methyl orange red
70. With which of the following compounds in solution will phenolphthalein give a pink color?
A. NH_4OH B. HCL C. H_2O D. H_2SO_4

BIOLOGY

71. Which of the following helps in the digestion of food?
A. Nutrients B. Hormones C. Enzymes D. All of these
72. Saliva contains an enzyme called
A. Amylase B. Trypsin C. Pepsin D. None of these
73. Bile is produced in the
A. Stomach B. Small intestine C. pancreas D. liver
74. Which of the following organ does not secrete digestive juices?
A. Stomach B. Small intestine C. liver D. Oesophagus
75. Finger-like projections called villi are present in
A. Stomach B. large intestine C. Small intestine D. liver
76. Polar bears which are found in regions with severe cold possess
A. Thick layer of fur on their bodies
B. A lot of fat in bodies
C. long, curved and sharp claws on the paws
D. All of these
77. Fishes that show migration are
A. Eels B. Salmon C. Whales D. Both A&B
78. Animal found in tropical rainforests are all except
A. Lion tailed macaque B. Red eyed frog C. Toucan D. Penguin
79. Weather of Kerala is
A. Hot & dry B. Hot & wet C. Cold & dry D. Cold & wet
80. Bird which migrates to Bharatpur (Rajasthan) is
A. Toucan B. Siberian crane C. penguin D. All of these
81. Which soil has the highest percolation rate?
A. Sand B. Clay C. Loam D. None of these
82. Soil profile consists of mainly
A. Two layers B. Three layers C. Four layers D. Five layers
83. Parent rock material is present in
A. A-horizon B. B-horizon C. C-horizon D. Bed rock
84. Soil fertility is enriched by
A. Soil erosion by wind or water C. Certain plants like legumes
B. Certain plants e.g., sal & deodar D. All of these
85. Soil pollution is caused by
A. Polythene bags C. Liquid waste from industries
B. Insecticides D. All of these
86. Which of the following is the most common respiratory substrate?
A. Vitamins B. Fats C. Glucose D. proteins

87. The process in which food is oxidised and energy is released is called
A. Excretion B. Respiration C. Digestion D. Transpiration
88. Respiration is a process opposite to
A. Blood circulation C. Photosynthesis
B. Digestion D. None of these
89. Normal range of breathing rate per minute in an adult person at rest is
A. 9-12 B. 15-18 C. 12-15 D. 18-24
90. In anaerobic respiration in yeast
A. O_2 is given out C. CO_2 is taken in
B. CO_2 is given out D. O_2 is taken in
91. William Harvey is known for discovery of
A. Blood circulation B. Blood clotting C. Respiration D. Digestion
92. Blood cells which protect the body from infection are
A. RBCs B. Platelets C. WBCs D. Haemoglobin
93. The process of removal of metabolic wastes from the body is known as
A. Excretion B. Egestion C. Transportation D. Circulation
94. Erythrocytes is the another name of
A. White blood cell B. Platelets C. Haemoglobin C. Red blood cell
95. The vena cava releases blood into
A. Right atrium B. Right ventricle C. Left atrium D. Left ventricle
96. Reproduction or propagation by stem is common in
A. Wheat B. Potato C. Sweet potato D. Bryophyllum
97. The four parts of flower from inside to outside are
A. Petals, sepal, anther, pistil C. Sepals, petals, anther, carpel
B. Sepal, petals, stamen, pistil D. Petals, sepals, anther, ovary
98. Mature ovule forms the
A. Seed B. Stamen C. Pistil D. Fruit
99. Ovary wall develops to form
A. Fruit wall B. Seed C. Pistil D. Pollen
100. Deforestation can cause
A. Soil erosion B. Land slide C. Flooding D. All of these