RAMAN SPACE MANTHAN

2025-26

Standard:- IX(CBSE)

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.
- There is a negative marking as -1
- Total exam time 2 hour.
- Don’t mark anything on the question paper

❖ PHYSICS

1. When a person is riding a horse, he is in motion with respect to...
   A. Earth B. Horse C. Sun D. Both a and c
2. A ball is thrown in vertically upward direction, during its entire course of motion its speed is
   A. First increases and then decreases B. First decreases and then increases
   C. Remains constant D. Increases countinuously
3. A train was running at full speed when brakes were applied. In the first minute, it travels 8km, and in the next minute, it travels 3km. What is the initial speed of train?
   A. 150m/s B. 175m/s C. 200m/s D. 225m/s
4. Which of the following statement is true for a particle moving in a uniform circular motion?
   A. Velocity is transverse and acceleration is radial.
   B. Velocity is radial and acceleration is transverse.
   C. Both velocity and acceleration are radial.
   D. Both velocity and acceleration are transverse.
5. A block is placed on a table what is the normal reaction on the block by the table?
   A. Equal to its mass B. Equal to its weight
   C. Equals to its acceleration D. All of the above
6. A constant force of 80 n acts on 4kg mass if the mass starts from rest what will be its velocity after 6s?
   A. 20m/s B.90m/s C.120m/s D.60m/s
7. After a collision two bodies stick together. What type of collision the two bodies are under going?
   A. Elastic collision B. Perfectly inelastic collision
   C. Inelastic collision D. None of these
8. Friction has no significant role in which of the following options?
   A. Ice tongs holding a block of ice B. A hand holding piece of paper
   C. An apple falling form tree D. A ball rolling
9. Find the work done by weightlifter holding a mass of 200kg at the height of 1.5 m above the ground.
   A.0 B.25j C.100j D.980j

10. A river is flowing at a speed of 4m/s. What is the K.E of cubic metre of water?

A.8j B.800j C.600j D. Zero

11. A chemical compound has less energy than the total energy of its constituents. What is this difference in energy called as?

A. Heat energy B. Nuclear energy

C. Sound energy D. Chemical energy

12. Kepler's second law is a consequence of

A. Law of conservation of energy

B. Law of conservation of angular momentum

C. Law of conservation of mass

D. Law of conservation of charge

13. If the distance between two bodies become 1/7 times the original distance , by how many times forces between them increase?

A. 49 times B. 7 times C. 14 times D. 1/36 times

14. As we go from the equator to the poles what happens to the value of g ?

A. Remains the same B. Decreases

C. Increases D. Decrease till the altitude of 45°

15. An hourglass will have its centre of gravity?

A. At its geometric centre B. At its top

C. At its bottum D. Outside

16. The speed od sound in air at S.T.P is 300 m/s. If the air pressure becomes double and the temperature remains the same, what will be speed of sound?

A. 1200 m/s B. 600 m/s C. $300\sqrt{2}$m/s D. 300 m/s

17. What should the wall of hall (built for musical concert) be able to do to get good sound?

A. Amplify sound B. Reflect sound

C. Transmit sound D. Absorb sound

18. For which of the following purposes, ultrasonics are not used?

A. Sound B. Sonography

C. Cleaning electronic gadgets D. Radio waves

19. What do you call a single point where all the incident rays from a point object after reflection from a plane mirror meet?

A. Virtual object B. Image C. Reflection D. Real object

20. What is the focal length of plane mirror?

A. Zero B. One C. Infinity D. Two

21. An object is placed at a point on the principal axis of a convex mirror of focal length 12cm. If the image found is half the size of the object, find the position of the image.

A. 3cm B. 6cm C. -6cm D. -3cm

22. A man has a concave shaving mirror of focal length 0.2 m how far should the mirror be held from his face in order to give an image of two fold magnification?

A. 0.1m B. 0.2m C. 0.3m D. 0.6m

23. Resistivity is very high for

A. Conductors B. Insulators

C. Semiconductors D. Alloys

24. Electric field is a _____ quantity.

A. Scalar B. Vector C. Tensor D. None of these

25. If the distance between two equal point charges is doubled, and their individual charges are also doubled, what would happen to the force between them?

A. Doubled B. Halved C. Remain same D. Becomes four time

26. Which of the following is the SI unit of pole strength?

A. Weber B. Ampere C. A m D. A m^2

27. What does the tangent drawn at any point on magnet lines of forces give?

A. Magnitude of magnetic field B. Direction of magnetic field

C. Magnetic flux no. D. Intensity of magnetization

28. At the magnetic poles of the earth, a compass needle will be

A. Vertical B. Bent slightly C. Horizontal D. Inclined at 45°

29. A charge in motion produces

A. Electric field B. Magnetic field

C. Both electric and magnetic field D. Neither electric nor magnetic field

30. Magnetic field is said to be uniform if field lines are

A. Straight B. Parallel C. Equally spaced D. All of these

31. Which of the following physical quantities is a derived physical quantity

A. Length B. Velocity C. Amount of substance D. Temperature

32. How many significant figures 2.006 have?

A. 2 B.4 C. 1 D. 3

33. The length of second hand in a watch is 5cm. Find the change in velocity of its tip in 15s

A. Zero B. $\Pi/6\sqrt{2}$ cm/s C. $\Pi/30$ cm/s D. $\Pi\sqrt{2}/6$ cm/s

34. The period of geostationary satellite of earth is
A.24hr B.48hr C.12hr D.0

35. What does the slope of velocity-time graph give?
A. Displacement change B. Velocity change
C. Acceleration D. Speed

36. In sonar, we use
A. Ultrasonic wave B. Infrasonic waves
C. Audible waves D. Radio waves

37. When a sound wave travels from one medium to another, which of the following quantity remain unchanged
A. Frequency B. Amplitude C. Wave length D. Speed

38. Which light wave will have the highest velocity in water?
A. Green B. Indigo C. Blue D. Orange

39. From which point, all the distance are measured while using sign convention?
A. Pole B. Focus C. Aperture D. None of these

40. A straight line joining the centre of curvature to the pole is called
A. Principal focus B. Focal length
C. Radius of curvature D. Principal axis

❖ CHEMISTRY

41. Which of the following is diatomic element?
A. Oxygen B. Calcium C. Zinc D. Zinc

42. Which of the following can be spilt into two or more different Substances?
A. Steel B. Brass C. Iron sulphite D. Iodine

43.which of the following mixtures will be difficult to separate?
A. Iron fillings+sand B. Sand+water
C. Sawdust+stones D. Nitrogen+hydrogen

44. Tincture of iodine has antiseptic properties. This solution is made by Dissolving:
A. I 2 in ki B. I 2 in vaseline C. I 2 in h 2 o D. I 2 in alcohol

45. Who proposed law of conservation of mass?
A. Antonie lavoisier B. Joseph proust
C. John dalton D. Josephlouis

46. Fog is colloidal solution of:
A. Solid in gas B. Liquid in gas C. Gas in liquid D. Gas in solid

47. Tyndall effect would be observed in:
A. Solvent B. Solution C. Colloidal solution D. Precipitation

48.which of the following is mixture?
A. Gunpowder B. Common salt C. Iron sulphite D. All of these

49. Which of the following elements has strongest tendency to form Anions?
A. P B. Na C.mg D. Pb

50. Helium shows bose-einstein condensate below what temperature?
A.100.5k B. 12.3k C. 5.12k D. 2.13k

51. Ratio of specific charge of a proton and an alpha particle is:
A. 2:1 B. 1:2 C. 1:4 D. 1:1

52. Sodium atom and sodium ion differ by
A. 1electron B. 1proton C. 1neutron D. All of these

53. Which of the following atomic model did not stand scrutinity?
A. Thomson B. Rutherford C. Bohr's D. Discharge tube

54. Bohr's model violates the rules of classical physics because it Assumes that:
A. All electrons have same charge.
B. The nucleus has same charge.
C. Electron can revolve around the nucleus.
D. A charge particle can accelerate without emitting radiant energy.

55. Which of the following electronic transition involve energy transition?
A. From k-shell to l-shell B. From l-shell to k-shell
C. Both (a) and (b) D. Cannot say

56. Neutrons are observed by
A. Bombarding of radium with alpha-particles
B. Bombarding of 'be' with alpha particles
C. Radioactive disintegration of uranium
D. Radioactive disintegration of thorium

57. The ability of carbon to form long chains as well as large rings is called:
A. Valence B. Catenation C. Allotropy D. All of these

58. The formula of an organic compound which represents the Arrangement of various atoms in a one molecule in space is called
A. Molecular formula B. Structural formula
C. Condensed formula D. Empirical formula

59. Organic compounds are
A. Non-electrolytes B. Inflammable
C. Both(a)and(b) D. Ionic

60. Identify the benzenoid compound from the following.

A. Benzene B. Naphthalene C. Phenol D. All of these

➢BIOLOGY

61. What happens if ribosomes of cell are destroyed?

A. Photosynthesis does not take place

B. Respiration does not occur

C. Fats cannot be stored

D. Proteins will not be formed

62. Which of the following organelles is known as the "kitchen" of the cell?

A. Golgi apparatus B. Chloroplast

C. Mitochondria D. Endoplasmic reticulum

63. Miniature biochemical factories where food is oxidised and energy is released are:

A. Plastids B. Vacuoles

C. Mitochondria D. Golgi Body

64. Which cell organelle is composed of a series of channels throughout the cytoplasm that functions in the transport of molecules?

A. Cell Wall B. Lysosomes

C. Endoplasmic reticulum D. Chloroplast

65. Which of the following is not a part of endomembrane system?

A. Lysosomes B. Golgi complex

C. Endoplasmic reticulum D. Mitochondria

66. In which type of vascular bundle, a strip of vascular cambium is present in between the xylem & phloem?

A. Closed B. Open C. Exarch D. Endarch

67. The type of cell present in cartilage are:

A. Osteoblasts B. Chondrocytes

C. Osteoclasts D. Fibroblasts

68. The cells that do not form a layer and remain structurally separated are:

A. muscle cell B. Gland cells

C. Nerve cells D. Epithelial cells

69.Nissl's granules are present in:

A. Nerve cells B. Bone cells

C. Cartilage cells D. Mast cells

70.In angiosperms, companion cells are present along with:

A. Parenchyma B. Sieve tubes

C. Fibres D. Xylem vessels

71.Which of the following crop is a rich source of carbohydrates that meet our energy requirements?

A. Green gram B. Groundnut

C. Cauliflower D. Maize

72.Farmers employ crop rotation to:

A. increase porosity of soil B. Increase organic content of soil

C. increase the soil fertility D. All of these

73. The high milk yielding cross breed of Frieswal cow is a product of:

A. Holstien x Tharparkar B. Brown Swiss x Red Sindhi

C. Friesian x Sahiwal D. Brown Swiss x Sahiwal

74.X is the artificial or man-made inorganic salt, that causes soil and water pollution and is soluble in water. Identify X.

A. Compost B. Vermicompost

C. Fertilizer D. Manure

75.How can nitrogen be naturally replenished in soil?

A. By using vermicompost

B. By using weedicides

C. By crop rotation with a leguminous crop

D. By using the fertilizers in large amounts

76.Akhil take special care that his clothes and undergarments are dry and clean. This practice will help him:

A. To protect from injuries B. To be free from Dandruff

C. To control fungus development D. To prevent skin infection &rashes

77.The female Anopheles mosquito is responsible for transmission of disease:

A. Cholera B. Malaria C. Filariasis D. Yellow fever

78.The disease dengue is caused due to:

A. Protozoa B. Bacteria C. Virus D. Fungi

79.During its life cycle, Plasmodium reproduces sexually in which of the following host;

A. Humans B. Female

C. Male Anopheles mosquito D. Both (A) and (B)

80.Which of the following disease cannot be cured by taking antibiotics?

A. Leprosy B. Whooping cough C. Amoebiasis D. Plague

81.The commonly used classification system is:

A. Darwin's five kingdom B. Linnaeus's two kingdom

C. Whittaker's five kingdom D. Haeckel's four kingdom

82.In which group of plants, true roots are absent?

A. Gymnosperms B. Angiosperms

C. Bryophytes D. Pteridotypes

83.The drug penicillin is extracted from which of the following species of Penicillium?

A. P. chrysogenum B. P. notatum

C. Both A& B D. None of these

84.Which pair of given animals are cold blooded?

A. Birds & monkeys B. Bats and rats

C. Frogs and snakes D. Snakes and birds

85.Which of the below is a defining character of plant only?

A. aerobic respiration B. Eukaryotic cell structure

C. cellulosic cell wall D. Autotrophic nutrition

86.Chemical responsible for Bhopal gas tragedy were:

A. DDT B. CO 2 & CH 4

C. Phosgene & methyl isocyanate D. Polychlorinated biphenyls

87.The most dangerous metal pollutant of automobile exhaust is:

A. Copper B. Mercury C. Lead D. Cadmium

88. Automobiles having catalytic converters posses which metal as catalyst?

A. Platinum–Palladium B. Rhodium

C. Lead D. Both A and B

89. The world's most problematic aquatic weed is a:

A. Parthenium hysterophorus B. Ambrosia trifida

C. Eichhornia crassipes D. Abelmoschus esculentus

90. In which of the following steps of nitrogen cycle, ammonia is released by the action of microorganisms?
A. Nitrification B. Denitrification
C. Ammonification D. Both A & C

91.Ahibiscus flower is said to be complete as it has:
A. All four whorls B. The corolla and calyx
C. The corolla and gynoecium D. The ovary and gynoecium

92.The part of the flower that gives rise to the fruit is:
A. Sepals B. Petals C. Ovary D. Stamens

93.The essential whorls of the flower is:
A. Calyx & corolla B. Stamen & ovary
C. Androecium & Gynoecium D. Calyx & epicalyx

94.The female reproductive part of a flower contains:
A. Sigma & style B. Anther & filament
C. Sepals & petals D. Pollen & pollen grains

95.A unisexual flower does not contain:
A. Pedicel B. Calyx & corolla
C. Thalmus D. Stamen and carpels

96.In which of the flowers, margin of thalamus grows upward enclosing the ovary and gets fused with it?
A. Perigynous flower B. Epigynous flower
C. Hypogynous flower D. Inflorescence

97.Identify the part of the gynoecium which receives the pollen.
A. Style B. Stigma C. Ovule D. Ovary

98.Which is the disposable unit in the cell?
A. Nucleus B. Chloroplast C. Golgi Body D. Lysosome

99.A cellular organism among the following is:
A. Euglena B. Chlamydomonas C. Virus D. Amoeba

100.Which cell organelle is responsible for autolysis?
A. Dictyosome B. Glyoxysome
C. Peroxisome D. Lysosomes