



Sample Paper (Class – 9th)

ISE Year - 2021

Physics

1. Pressure is
 - (1) Inversely proportional to force
 - (2) Directly proportional to mass
 - (3) Inversely proportional to area of contact
 - (4) Directly proportional to area of contact
2. Same force produces more pressure on
 - (1) Circular area
 - (2) Larger area
 - (3) Smaller area
 - (4) Equal area
3. It is easy to walk on sand with flat shoes because
 - (1) Flat shoes are sand resistant
 - (2) Flat shoes are made of plastic
 - (3) Flat shoes are lighter
 - (4) Flat shoes have larger surface area
4. Wheels of vehicle are stopped by using brake that works on property of
 - (1) Retardation
 - (2) Friction
 - (3) Acceleration
 - (4) Pressure
5. Streamlining is
 - (1) Making back thick
 - (2) Making back thin
 - (3) Making tips thin
 - (4) Making tips thick
6. The motion imparted to objects is due to the
 - (1) Action of gravity
 - (2) Action of weight
 - (3) Action of pressure
 - (4) Action of force

7. The weight of air in a column of the height of the atmosphere and area $10\text{cm} \times 10\text{cm}$ is equal to
- (1) 100 kg
 - (2) 1000 kg
 - (3) 58 kg
 - (4) 9.8 kg
8. A box weighing 2 kg exerts a force of 20 N on the ground. The box covers an area of 2m^2 on the ground. The pressure exerted by the box on the ground is
- (1) 40 Pa
 - (2) 30 Pa
 - (3) 10 Pa
 - (4) 20 Pa
9. Striker moves longer distance on carom when
- (1) Striker is old
 - (2) Striker is new
 - (3) Powder is sprinkled
 - (4) Carom board is neat and clean
10. It is difficult to walk on an oily floor because
- (1) Force of friction is very less
 - (2) Force of friction is absent
 - (3) Force of friction is very high
 - (4) Floor get spoiled
11. The force by which earth attract the other body is called
- (1) Contact force
 - (2) Muscular force
 - (3) Gravitational force
 - (4) Magnetic force
12. Perpendicular force acting per unit area is called is called
- (1) Energy
 - (2) Thrust
 - (3) Work
 - (4) Power
13. When action and reactions forces are equal and opposite, They don't cancel
- (1) Because they have unequal mass
 - (2) Because they are in state of rest
 - (3) Because they have same direction
 - (4) Because they are acting on two different bodies

14. Sound can travel through
- (1) solids, liquids and gases
 - (2) liquids only
 - (3) solids only
 - (4) gases only
15. When we attempt to move any surface, we apply a force to overcome
- (1) Interlocking between surfaces
 - (2) Gravitational force of earth
 - (3) Electrostatic force between particles
 - (4) Vander wall force between surfaces

Chemistry

16. Read the following statements:
- i. Acrylic fibres can be made into transparent sheets.
 - ii. Acrylic fibres are used to make thermal wears.
- (1) Both are correct
 - (2) Statement (i) is wrong and (ii) is correct
 - (3) Both are wrong
 - (4) Statement (ii) is wrong and (i) is correct
17. Which of the following can be beaten into thin sheets?
- (1) Phosphorus
 - (2) Oxygen
 - (3) Sulphur
 - (4) Zinc
18. We can control the physical properties of synthetic fibres by:
- (1) rearranging the dimers
 - (2) rearranging the polymer
 - (3) rearranging the tetramers
 - (4) rearranging the monomers
19. Which of the following statements is correct?
- (1) All metals are ductile
 - (2) All non-metals are ductile
 - (3) Some non-metals are ductile
 - (4) Generally, metals are ductile

20. Match the following:

Element	Property
i) Silicon	a) inert gas
ii) Helium	b) solid semi metal
iii) Aluminum	c) occurs as liquid
iv) Bromine	d) noble metal
v) Silver	e) amphoteric

- (1) i.b; ii.d; iii.e; iv.c; v.a
- (2) i.b; ii.a; iii.e; iv.c; v.d
- (3) i.d; ii.a; iii.b; iv.e; v.c
- (4) i.c; ii.e; iii.d; iv.a; v.b

21. Nylon is a :

- (1) True synthetic fibre
- (2) Natural fibre
- (3) Regenerated fibre
- (4) Both true synthetic fibre & regenerated fibre

22. It is dangerous to burn plastics because :

- (1) Increase number of insects
- (2) Fumes if inhaled cause immediate death
- (3) Toxic fumes released can cause cancer
- (4) Reduce soil fertility

23. Yarn is twisted to form:

- (1) Plastic
- (2) Thread
- (3) Fabric
- (4) Fibre

24. Which of the following is not included in 3R concept :

- (1) Reuse
- (2) Recycle
- (3) React
- (4) Reduce

25. Tungsten is used in incandescent bulb because tungsten :

- (1) Has very high melting point
- (2) High malleability & ductility
- (3) Has very low melting point
- (4) Sonorosity

26. It is a hard white solid and used as a sizing agent in the paper industry.

This is:

- (1) melamine
- (2) polyvinylchloride
- (3) polypropylene
- (4) Bakelite

27. Which plastic this symbol indicates?



- (1) PP
- (2) PVC
- (3) PET
- (4) PTFE

28. PIC refers to :

- (1) Plastic Ignition Code
- (2) Plastic Ideological Code
- (3) Plastic Imaging Code
- (4) Plastic Identification Code

29. Plastics are classified as thermoplastic and thermosetting plastic based on their behaviour :

- (1) on passing electricity
- (2) on cooling
- (3) on heating
- (4) on ironing

30. This element is :



- (1) Mercury
- (2) Sodium
- (3) Bromine
- (4) Aluminium sheet

Biology

31. Seed drill helps into :

- (1) Proper but irregular spacing between seeds
- (2) Irregular spreading of seeds
- (3) Unequal spacing between seeds
- (4) Proper & regular spacing between seeds

32. Animal those yield milk are also known as :

- (1) Mild animal
- (2) Milch animals
- (3) Broilers
- (4) Domestic animals

33. The type of crop shown in the following image is :-



- (1) Fibre crop
 - (2) Spices
 - (3) Pulses
 - (4) Beverage crop
34. Which of the following have a cell wall?
- (1) Plant
 - (2) Bacteria
 - (3) Fungi
 - (4) All of these
35. Watering the crops is called:
- (1) Manuring
 - (2) Irrigation
 - (3) Tilling
 - (4) Sowing
36. The crop field is irrigated before sowing because:
- (1) Different irrigation systems prevent weed growth
 - (2) Moisture is necessary for seed germination
 - (3) Irrigation works as bio fertiliser for seed germination
 - (4) Watering increases content of soil air for seed germination
37. Fill in the blanks : watering of fields : irrigation :: nurseries : _____
- (1) Transplantation
 - (2) Seed beds
 - (3) Saplings
 - (4) Seedlings
38. Hand weeding method of weed removal is :
- (1) Efficient and non time consuming
 - (2) Efficient but laborious
 - (3) Non efficient but cost effective
 - (4) Time consuming but cost effective
39. A slipper shaped fresh water protozoan moves with the help of:
- (1) Cilia
 - (2) Pseudopodia
 - (3) Flagella
 - (4) Tentacles

40. Which disease still doesn't have a vaccine?
- (1) Jaundice
 - (2) Cholera
 - (3) Tuberculosis
 - (4) Malaria
41. Flooding of fields leading to accumulation of water in field will deplete:
- (1) light penetration ability
 - (2) capillary water
 - (3) soil air
 - (4) biological fauna
42. Which of the following group is that of horticultural crops ?
- (1) potato, balsam, papaya, onion, crotons
 - (2) bougainvillea, groundnut, jowar, cotton, crotons
 - (3) marigold, balsam, orange, wheat, maize
 - (4) crotons, cactus, barley, cabbage, groundnut
43. Read the following statements
- (i) Traditional methods of irrigation use manpower or animal power.
 - (ii) Modern methods of irrigation are based on economic use of water.
- (1) Statement (ii) is correct and (i) is wrong
 - (2) Statement (i) is correct and (ii) is wrong
 - (3) Both are wrong
 - (4) Both are correct
44. Microbial diseases are
- (1) All curable by antibiotic treatment
 - (2) Communicable
 - (3) Non-communicable
 - (4) Without any antibiotic treatment
45. Viruses do not multiply inside?
- (1) Bacteria
 - (2) Algae
 - (3) Fungi
 - (4) Non-living cell

Mathematics

46. The numbers _____ and _____ are their own reciprocals.
- (1) 2, -2
 - (2) 1, -1
 - (3) 0
 - (4) 1

47. What will be the number of zeros in the square of 700?
- (1) 4
 - (2) 1
 - (3) 3
 - (4) 2
48. Without doing any calculation, find the numbers which are surely perfect squares.
- (1) 2209
 - (2) 2287
 - (3) 2203
 - (4) 2278
49. 207^2 would have digit _____ at unit place.
- (1) 6
 - (2) 0
 - (3) 9
 - (4) 3
50. The cube of 43 is _____
- (1) 15625
 - (2) 50653
 - (3) 9261
 - (4) 79507
51. Three consecutive integers are such that when they are taken in increasing order and multiplied by 2, 3 and 4 respectively, they add up to 74. Find these numbers.
- (1) 6, 7, 8
 - (2) None of the
 - (3) 7, 8, 9
 - (4) 9, 10, 11
52. The number of boys and girls in a class are in the ratio 7:5. The number of boys is 8 more than the number of girls. What is the total class strength?
- (1) 45
 - (2) 0
 - (3) 40
 - (4) 48
53. Two adjacent angles of a parallelogram have equal measure. Find the measurement of each of the angles of the parallelogram.
- (1) 60°
 - (2) None of these
 - (3) 30°
 - (4) 90°

54. Find: $\left(\frac{64}{25}\right)^{\frac{3}{2}}$

- (1) 64
- (2) 125
- (3) $\frac{125}{512}$
- (4) 512

55. 1681 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows.

- (1) 43
- (2) 47
- (3) 49
- (4) 41

56. All square numbers do not end with _____ at unit's place.

- (1) 2,3,7 and 8
- (2) 4
- (3) 5
- (4) 9

57. The cube of 28 is _____.

- (1) 211952
- (2) 15625
- (3) 21952
- (4) 9261

58. Find the cube root of 216000.

- (1) None of these
- (2) 50
- (3) 40
- (4) 60

59. Solve: $16x = 96$

- (1) 7
- (2) 8
- (3) 9
- (4) 6

60. Solve: $\frac{x}{3} = 12$

- (1) 3
- (2) 12
- (3) 36
- (4) -41

61. Express $\frac{7}{8}$ in the decimal form.
- (1) 0.8
 - (2) 20
 - (3) 0.67
 - (4) 0.875
62. Find the perfect square numbers between 20 and 30.
- (1) 26
 - (2) 25
 - (3) 27
 - (4) 28
63. Find the smallest number by which 675 must be divided so that the quotient is a perfect square.
- (1) 3
 - (2) 4
 - (3) 2
 - (4) 5
64. If $(9261)^{1/3} = 2p + 3$, then the value of p is
- (1) 9
 - (2) 7
 - (3) 8
 - (4) 5
65. 36^2 would have digit _____ at unit place.
- (1) 6
 - (2) 0
 - (3) 2
 - (4) 4

Mental Ability

66. By looking in a mirror, it appears that it is 6:30 in the clock. What is the real time?
- (1) 6:30
 - (2) 5:30
 - (3) 6:00
 - (4) 5:30
67. Arun facing East, he turns 90° clockwise then again turns 45° clockwise. Now 'Arun' is facing which direction.
- (1) South-West
 - (2) North-East
 - (3) North-West
 - (4) East

68. Curd : Milk :: Table : ?

- (1) Wood
- (2) Chair
- (3) Coat
- (4) Tree

69. A and B started walking from the same point. A goes North and covers 3 km; then turns right and covers 4 km. B goes west and covers 5 km, then turns right and covers 3 kms. How far apart are they from each other?

- (1) 10 km
- (2) 9 km
- (3) 8 km
- (4) 5 km

70. Sports is related to Logo in the same way as Nation is related to

- (1) Emblem
- (2) Animal
- (3) Ruler
- (4) Anthem

71. MANTEL : NAMLET :: VANITY : ?

- (1) NAVYIT
- (2) NAVYTI
- (3) NAVIYI
- (4) NAVIYI

72. Boat is related to Oar in the same way as Bicycle is related to

- (1) Road
- (2) Wheel
- (3) Seat
- (4) Paddle

73. 'A' introduces 'B' as the 'daughter of the only sister of his mother's husband'. How is B related to A?

- (1) Daughter
- (2) Sister
- (3) Cousin
- (4) Mother

74. Sailesh introduces Mahipla as the son of the only brother of his father's wife. How is mahipal related to Sailesh.

- (1) Cousin
- (2) Son
- (3) Maternal uncle
- (4) Son in law

75. When seen through a mirror, a clock shows 8:30. The correct time is

- (1) 2:30
- (2) 3:30
- (3) 5:30
- (4) 8:30

