

Name.....

Batch..... Roll No. ....

## FOUNDATION

### SCREENING MOCK TEST SERIES

Date : 21-07-2024

FN24<sub>w</sub>/TP/PCBM

PHYSICS + CHEMISTRY + BIOLOGY + MATHEMATICS

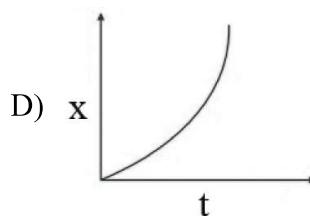
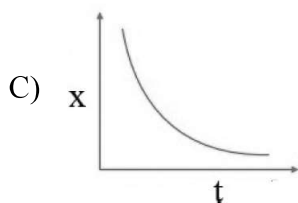
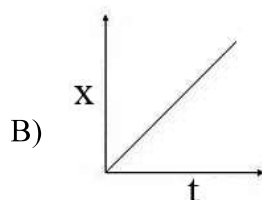
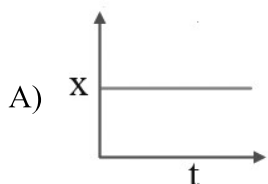
Class X (IX Studying)

#### PHYSICS

- Choose the correct relationship from the following  
A)  $v = u + at$                       B)  $v = u - at$                       C)  $v = \frac{u}{at}$                       D)  $v = \frac{at}{u}$
- The rate of change of displacement with time is called  
A) Speed                      B) Velocity                      C) Acceleration                      D) Retardation
- The slope of velocity - time graph gives  
A) Speed                      B) Velocity                      C) Acceleration                      D) Momentum
- How does light normally travel ?  
A) In concentric circles                      B) In a straight line  
C) Always toward a dark area                      D) In a curved line
- The formula to find the work done is  
A)  $W = F + S$                       B)  $W = F.S$                       C)  $W = F-S$                       D)  $W = \frac{F}{s}$
- The sum of kinetic energy and potential energy  
A) Thermal energy                      B) Mechanical Energy                      C) Potential energy                      D) Kinetic energy
- The laws of reflection hold good for  
A) Plane mirror only                      B) Concave mirror only  
C) convex mirror only                      D) All mirror irrespective of their shape
- According to the third law of motion, action and reaction  
A) Always out on the same body  
B) Always act on different bodies in opposite directions  
C) Have same magnitude and directions  
D) Act on either body and normal to each other

9. Image formed by plane mirror is  
A) Real and erect      B) Real and inverted      C) Virtual and erect      D) Virtual and inverted
10. In optics an object which has higher refractive index is called  
A) Optically rarer      B) Optically denser      C) Optical density      D) Refractive index
11. What force is needed to produce an acceleration of  $2\text{m/s}^2$  in a body of mass 3 Kg ?  
A) 6 N      B) 20 N      C) 5 N      D) 1 N
12. Friction is  
A) Useful to us      B) Harmful to us  
C) Both useful as well as harmful to us      D) None of them
13. If the velocity of an object changes from an initial value  $u$  to the final value  $v$  in time  $t$ , the acceleration  $a$  will be  
A)  $a = \frac{v-u}{t}$       B)  $a = \frac{v+u}{t}$       C)  $a = \frac{t}{v-u}$       D)  $a = \frac{t}{v+u}$
14. The SI unit of force is  
A) Kg m/s      B) Kg m/s<sup>2</sup>      C) Newton      D) Newton - meter
15. The image formed by a concave mirror is real, inverted and highly diminished. The object must be  
A) between pole and focus      B) At focus  
C) All the centre of curvature      D) At infinity
16. The path length travelled by a body in a given time interval is known as :  
A) Distance      B) Velocity      C) Acceleration      D) Moment
17. What is the momentum of an object of mass  $m$  moving with a velocity  $v$  ?  
A)  $mv^2$       B)  $(mv)^2$       C)  $\frac{1}{2}mv^2$       D)  $mv$
18. Which one of the following forces is a contact force ?  
A) Force of gravity      B) Force of friction      C) Magnetic force      D) Electrostatic force
19. Force acts on an object may change;  
A) Direction      B) shape      C) speed      D) All of above

20. When an object is released from a height, its initial velocity is
- A)  $u = 100 \text{ m/s}$       B)  $u = 9.8 \text{ m/s}$       C)  $u = 0$       D)  $u = \frac{1}{2} \text{ m/s}$
21. A ball rolling on the ground slows down and finally stops. This is because of
- A) Force      B) Less force applied      C) Friction      D) None of above
22. Choose the correct equation for pressure
- A)  $p = \frac{F}{A}$       B)  $P = F.A$       C)  $P = F + A$       D)  $P = \frac{F}{V}$
23. Gravity is
- A) Repulsive      B) Attraction + Repulsive force  
C) Attractive force      D) Not a force
24. Choose the graph for an object at rest



25. What is force ?
- A) Pull and push both      B) Pull  
C) Push      D) None of the above

### CHEMISTRY

26. \_\_\_\_\_ is anything that occupies space and has mass
- A) Materials      B) Object      C) Matter      D) Substance

27. Process of conversion of solid substances directly into gas is called
- A) Condensation      B) Sublimation      C) Vaporisation      D) Solidification
28. Which apparatus is used to separate immiscible liquids from their mixture ?
- A) Distillation      B) Separating funnel      C) Centrifugation      D) Chromatography
29. Pure substances that is formed from two or more elements through chemical combination is
- A) Compounds      B) Elements      C) Molecules      D) Mixtures
30. Symbol used for the element sodium is
- A) S      B) So      C) N      D) Na
31. \_\_\_\_\_ are the smallest particles which can exist independently
- A) Atoms      B) Molecules      C) Elements      D) Mixture
32. How many atoms are present in H<sub>2</sub> molecule
- A) 1      B) 2      C) 4      D) 3
33. Which one of the given below is not a fossil fuel ?
- A) Coal      B) Crude oil      C) Wood      D) Natural gas
34. Which element is found in coal ?
- A) Carbon      B) Nitrogen      C) Oxygen      D) Chlorine
35. Full form of LPG
- A) Light petroleum gas      B) Liquefied petroleum gas  
C) Long pipe of gas      D) Long petroleum gas
36. The type of combustion in which the gas burns rapidly and produces heat and light is known as \_\_\_\_\_
- A) Spontaneous combustion      B) Rapid combustion  
C) Explosion      D) Slow combustion



46. Atoms of the same element having the same atomic number but different mass number are called \_\_\_\_\_
- A) Isobar                      B) Isochore                      C) Isotope                      D) None of these
47. How many electrons are donated by Magnesium to form Magnesium oxide ?
- A) 1                              B) 2                              C) 4                              D) 6
48. How many pair of electrons are shared in a nitrogen molecule ?
- A) 3                              B) 2                              C) 1                              D) 4
49. Which element have the highest electronegativity ?
- A) Oxygen                      B) Chlorine                      C) Sulphur                      D) Fluorine
50. What is the valency of chlorine ?
- A) 1                              B) 2                              C) 7                              D) 3

### **BIOLOGY**

51. \_\_\_\_\_ is called the energy currency of the cell
- A) Endoplasmic reticulum                      B) Oxygen  
C) ATP    D) Mitochondria
52. \_\_\_\_\_ is called the powerhouse of the cell
- A) Mitochondria                      B) ATP                              C) Lysosomes                      D) Red blood cell
53. Which plastids are colourless ?
- A) Chromoplast                      B) Chloroplast                      C) Leucoplast                      D) All of the above
54. Which of the following is a characteristic feature of meristematic tissue ?
- A) Cells with large vacuoles                      B) Rapid cell division  
C) Presence of intercellular spaces                      D) Highly specialized cells
55. Xylem and phloem are types of
- A) Epithelial tissue                      B) Nervous tissue                      C) Muscular tissue                      D) Plant tissues
56. Girth of stem increases due to
- A) Apical meristem                                      B) Lateral meristem  
C) Inter calary meristem                                      D) Vertical meristem
57. \_\_\_\_\_ stimulates the production of gastric juice in the stomach
- A) Gastrin                              B) Enterokinase                              C) Rennin                              D) Digestin

58. What is the Enzyme that breaks down lactose ?  
A) Lipase enzymes    B) Pepsin    B) Amylase    D) Lactase
59. Members of the same species living in the same place at the same time make a ?  
A) Habitat    B) Biosphere    C) community    D) Population
60. Ecology deals with the study of:  
A) Living beings  
B) Living and non living components  
C) Reciprocal relationship between living and non living components  
D) Environment
61. The pyramid of energy in any ecosystem is  
A) Always upright    B) May be upright or inverted  
C) Always inverted    D) None of the above
62. Linnaeus evolved a system of nomenclature called \_\_\_\_\_  
A) Monomial    B) Binomial    C) Vernacular    D) Polynomial
63. Smallest taxon of classification is \_\_\_\_\_  
A) Kingdom    B) Family    C) Variety    D) Species
64. What is the main basis of classification in the five-kingdom system ?  
A) Structure of nucleus    B) Structure of cell wall  
C) A sexual reproduction    D) Mode of nutrition
65. Kharif crops are grown in  
A) Winter season    B) Rainy season    C) Summer season    D) Both A and B
66. The process of scattering or putting seeds in to the soil is called  
A) Irrigation    B) Ploughing    C) Sowing    D) Levelling
67. The chemical substances rich in particular nutrients are called  
A) Manures    B) Fertilisers  
C) Decomposed matter    D) None of the above
68. The system of irrigation where water is supplied drop by drop near the roots of plant is called  
A) Pulley system    B) Drip system    C) Sprinkler system    D) Lever system
69. Mushroom belongs to  
A) Algae    B) Virus    C) Fungi    D) None of these

70. Scientist who discovered fermentation is  
A) Alexander Fleming                      B) Louis Pasteur  
C) John Mendal                              D) Edward Jenner
71. Microorganisms are  
A) Unicellular                      B) Multicellular                      C) Both                      D) None of these
72. Lactobacillus promotes the formation of curd which is an example of \_\_\_\_\_  
A) Bacteria                      B) Fungus                      C) Virus                      D) Algae
73. Name the pores in a leaf through which respiratory exchange of gas takes place  
A) Lenticels                      B) Vacuoles                      C) Xylem                      D) Stomata
74. Which of the following is not a characteristic of an organism  
A) They can grow                      B) they respond to change in environment  
C) They release energy during respiration  
D) They do not need food and water
75. The site of photosynthesis in the cells of a leaf is  
A) Chloroplast                      B) Mitochondria                      C) Cytoplasm                      D) Protoplasm

### **MATHEMATICS**

76. Find the degree of the polynomial  
 $x^4 + x^3 + 2$   
A) 4                      B) 3                      C) 0                      D) 2
77. In a rectangle length = 8 cm, Breadth = 6 cm. Then its diagonal  
A) 9 cm                      B) 12 cm                      C) 10 cm                      D) 11 cm
78. Which of the following triangles have the same side lengths ?  
A) Scalene                      B) Isosceles                      C) Equilateral                      D) None of these
79. Which of the following is a perfect square ?  
32, 88, 100, 51  
A) 32                      B) 88                      C) 51                      D) 100



80. Divident is equal to
- A) Divisor x quotient + reminder                      B) divisor x quotient  
C) divisor x quotient - reminder                      D) divisor x quotient x reminder
81. The square of 42 is
- A) 1764                      B) 1868                      C) 1504                      D) 1708
82.  $\sqrt{7}$  is
- A) integer                      B) irrational number                      C) rational number                      D) None of these
83. Cube root of 512 is
- A) 4                      B) 6                      C) 8                      D) 12
84. If two lines intersect each other, then the vertically opposite angles are
- A) Equal                      B) Unequal  
C) Cannot be determined                      D) None of these
85. An integer can be
- A) Only positive                      B) Only negative  
C) Both positive and negative                      D) None of these
86. The value of  $\frac{1}{2} \times \frac{4}{5}$  is equal to
- A)  $\frac{4}{5}$                       B)  $\frac{2}{5}$                       C)  $\frac{8}{5}$                       D)  $\frac{1}{5}$
87. Which of the following is not a square number ?
- A) 28                      B) 16                      C) 25                      D) 81



97. The product of a rational and irrational number is
- A) Rational                      B) Irrational                      C) Both A and B                      D) None of these
98. If ABC and DEF are similar triangles such that  $\angle A = 45^\circ$ ,  $\angle F = 56^\circ$  then  $\angle C$  is equal to
- A)  $79^\circ$                       B)  $101^\circ$                       C)  $56^\circ$                       D)  $45^\circ$
99. The zeros of  $x^2 - 2x - 8$  are
- A) (2, -4)                      B) (4, -2)                      C) (-2, -2)                      D) (-4, -4)
100. HCF of 8, 9, 25 is
- A) 8                      B) 9                      C) 25                      D) 1

Name.....

Batch..... Roll No. ....

Date :21-07-2024

**FOUNDATION**  
**SCREENING MOCK TEST SERIES**

FN24<sub>w</sub>/TP/PCBM

P + C + B + M - KEY

Class X (IXStudying)

**PHYSICS**

1. A
2. B
3. C
4. B
5. B
6. B
7. D
8. B
9. C
10. B
11. A
12. C
13. A
14. C
15. D
16. A
17. D
18. B
19. D
20. C
21. C
22. A
23. C
24. A
25. A

**CHEMDISTRY**

26. C
27. B
28. B
29. A
30. D
31. B
32. B
33. C
34. A
35. B
36. B
37. C
38. C
39. A
40. A
41. D
42. D
43. A
44. C
45. D
46. C
47. B
48. A
49. D
50. A

**BIOLOGY**

51. C
52. A
53. C
54. B
55. D
56. B
57. A
58. D
59. D
60. C
61. A
62. B
63. D
64. D
65. B
66. C
67. B
68. B
69. C
70. B
71. B
72. A
73. D
74. D
75. A

**MATHEMATICS**

76. A
77. C
78. C
79. D
80. A
81. A
82. B
83. C
84. A
85. C
86. B
87. A
88. C
89. C
90. C
91. B
92. A
93. B
94. C
95. A
96. B
97. B
98. A
99. B
100. D