

Name .....

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

Date :07-07-2024

# FOUNDATION SCREENING MOCK TEST SERIES

FN24<sub>D</sub>/TP/PCBM

**PHYSICS + CHEMISTRY + BIOLOGY + MATHEMATICS**

Class IX (VIII Studying)

## PHYSICS

1. The graph between distance and time for a non-uniform motion is  
A) Curve line            B) Straight line            C) Parallel line            D) Zig-zag line
2. The speed of a train is 60 km/h. The distance covered by the train in 4 hours would be :  
A) 15 km            B) 240 km            C) 0.06 km            D) 150 km
3. A simple pendulum is an example of  
A) Circular motion    B) Periodic motion    C) Linear motion    D) Rotational motion
4. An element which easily get magnetized and demagnetized is  
A) Steel            B) Copper            C) Iron            D) Silver
5. Magnetic materials include  
A) Steel            B) Iron            C) Nickel            D) All of them
6. A substance consisting of a coil of wire with an iron core, and is only magnetized, when an electric current flows through it this is called :  
A) Magnet            B) Electromagnet            C) Permanent magnet    D) Coil
7. 5 m = \_\_\_\_\_ cm  
A) 5000 cm            B) 500 cm            C) 50 cm            D) 250 cm
8. Force = \_\_\_\_\_  
A)  $m \times a$             B)  $m/a$             C)  $m + a$             D)  $m - a$
9. Unit of force is  
A) Pascal            B) Newton            C) Joule            D) Kelvin

- 
10. Motion of a child on a swing is
- A) Circular motion    B) Periodic motion    C) Linear motion    D) Oscillatory motion
11. Which one is a poor conductor of electricity
- A) Acidic solution    B) Alkaline solution    C) Salt solution    D) Distilled water
12. An electric bulb glows due to
- A) Heating effect    B) Magnetic effect    C) Chemical effect    D) Physical effect
13. Electroplating prevents
- A) Corrosion    B) Shining    C) Passing of current    D) Dissociation
14. The passage of an electric current through a solution cause
- A) Chemical effect    B) Electric effect    C) Magnetic effect    D) No effect occurs
15. The sound produced by a Harmonium?
- A) Musical sound    B) Audible sound    C) Noise    D) In-audible sound
16. An object is vibrating at 50 Hz. What is its time period?
- A) 0.02 sec    B) 0.2 sec    C) 2 sec    D) 20 sec
17. 1 Hertz is equal to
- A) 1 vibration/minute    B) 10 vibrations/ minute
- C) 60 vibrations/minute    D) 100 vibrations/minute
18. Number of oscillations per second is called
- A) Amplitude    B) Period    C) Frequency    D) Pitch
19. Which of the following is correct regarding the rods and cones in the human eye?
- A) Cones are sensitive to dim light    B) Cones are sensitive to bright light
- C) Rods are sensitive to bright light    D) Rods can sense colour

20. If the reflected ray is at an angle of  $90^\circ$  to the incident ray. Find the angle of incidence?
- A)  $90^\circ$                       B)  $40^\circ$                       C)  $45^\circ$                       D)  $0^\circ$
21. Image formed by a plane mirror is :
- A) Real                      B) Inverted                      C) Virtual                      D) Erect
22. The size of the pupil becomes \_\_\_\_\_ when you see in dim light
- A) Small                      B) Large                      C) No change                      D) Either large or small
23. Identify the fourth state of matter
- A) Solid                      B) Liquid                      C) Gas                      D) Plasma
24. Materials made of particles of identical nature are called
- A) Pure substance                      B) Impure substances                      C) Mixtures                      D) Liquids
25. In the \_\_\_\_\_ state, particles are relatively farther apart
- A) Solid                      B) Liquid                      C) Gas                      D) Both B & C

### CHEMISTRY

26. Which of the following is a synthetic fibre
- A) Jute                      B) Rayon                      C) Silk                      D) Wool
27. The chemical known as oil of vitriol is
- A) Ferrous sulphate                      B) Copper sulphate                      C) Sulphuric acid                      D) Nitric acid
28. Number of electrons present in Helium atom, Hydrogen atom and Carbon atom respectively
- A) 1, 2, 6                      B) 2, 1, 6                      C) 1, 1, 12                      D) 4, 1, 12
29. Swathy got a mixture of ammonium chloride and sand in a china dish. Which method of separation should be applied to separate the components?
- A) Filtration                      B) Winnowing                      C) Sublimation                      D) Distillation



38. Bases has the ability to turn
- A) Red litmus  $\longrightarrow$  Blue                      B) Blue litmus  $\longrightarrow$  Violet  
C) Blue litmus  $\longrightarrow$  Red                      D) Red litmus  $\longrightarrow$  Yellow
39. Freezing point of water is
- A) 0°C                      B) 100°C                      C) 1000°C                      D) 273°C
40. Chemical reactions that absorb heat are called
- A) Endothermic reaction                      B) Exothermic reaction  
C) Electrochemical reaction                      D) Photo-chemical reaction
41. Organic acid found in lemon is
- A) Lactic acid                      B) Citric acid                      C) Acetic acid                      D) Malic acid
42. The constituents of Nichrome is
- A) Nickel, Chromum, iron                      B) Copper and Zinc  
C) Iron, Aluminium, Nickel, Cobalt                      D) Copper and Tin
43. Most appropriate method to separate ethanol (b.p - 78°C) and methanol (bp - 65°C) is
- A) Distillation                      B) Fractional distillation  
C) Sublimation                      D) Filtration
44. Total number of atoms present in  $2\text{K}_2\text{Cr}_2\text{O}_7$  molecule is
- A) 1                      B) 2                      C) 22                      D) 12
45. Identify balanced chemical reaction from given alternatives
- A)  $\text{Mg} + \text{O}_2 \longrightarrow \text{MgO}$                       B)  $\text{Na} + \text{Br}_2 \longrightarrow \text{NaBr}$   
C)  $\text{H}_2 + \text{O}_2 \longrightarrow \text{H}_2\text{O}$                       D)  $\text{C} + \text{O}_2 \longrightarrow \text{CO}_2$

46. Which of the following statements is true about alkalies ?
- A) Bases which are soluble in water are called alkalies
  - B) Bases which are soluble in acids are called alkalies
  - C) Bases on dissolving in non polar solvents produce  $H^+$  ions
  - D) Bases are sour in taste
47. The positively charged centre of an atom is called it's
- A) Electron
  - B) Orbit
  - C) Nucleus
  - D) Nucleolus
48. Hydrochloric acid(X) is a strong mineral acid. Sodium hydroxide (Y) is a strong base. Then the likely pH values of X and Y are
- A) X -14  
Y -14
  - B) X -0  
Y -14
  - C) X -14  
Y -0
  - D) X -6  
Y -8
49. Name the metal oxide which is amphoteric in nature?
- A) Zinc oxide
  - B) Sodium oxide
  - C) Magnesium oxide
  - D) Carbon dioxide
50. Some statements about suspension are given. Identify the wrong one.
- I. Suspension is a homogenous mixture.
  - II. Particles of a suspension can not be seen by a naked eye.
  - III. When a suspension is left undisturbed, solute particles will settle down.
  - IV. Chalk water mixture is an example for suspension
- A) I, III
  - B) I, II, IV
  - C) I, II, III
  - D) I, II

**BIOLOGY**

51. Plants are
- A) Autotrophic      B) Heterotrophic      C) Saprophytic      D) Holozoic
52. Chlorophyll absorbs
- A) Red light only      B) Blue light only      C) Red and blue light      D) Green light only
53. The role of chlorophyll in photosynthesis is to
- A) Absorb water and minerals
- B) Absorption of CO<sub>2</sub>
- C) Absorption of light and photolysis of water
- D) Absorption of light
54. The phenomenon which converts light energy to chemical energy is
- A) Respiration      B) Photosynthesis      C) Transpiration      D) None of these
55. Climate in the coastal regions is
- A) Hot and dry      B) Moderate and humid
- C) Cold and dry      D) Cold and humid
56. Water vapour present in atmosphere is called?
- A) Humidity      B) Precipitation      C) Climate      D) Rainfall
57. Animal not found in polar region is
- A) Polar bear      B) Penguin      C) Seal      D) Elephant
58. Breakdown reaction are called
- A) Anabolism      B) Catabolism      C) Metabolism      D) All of these





70. Double fertilization is characteristic of
- A) Angiosperms      B) Algae      C) Gymnosperms      D) Bryophytes
71. Resting stage of plant parts is called
- A) Dormancy      B) Germination      C) Budding      D) Regeneration
72. A group of cells performing common function can be called as
- A) Tissue      B) Organs      C) Organ systems      D) Cell aggregate
73. Which among the following is the most abundant permanent tissue, in a young plant
- A) Parenchyma      B) Collenchyma      C) Sclerenchyma      D) Phloem
74. Tissue composed mainly of dead cell is
- A) Collenchyma      B) Epidermis      C) Xylem      D) Endodermis
75. In closed circulatory system blood is completely enclosed with in
- A) Sinus      B) Lymph      C) Plasma      D) None of these

### MATHEMATICS

76. If  $y$  is the reciprocal of rational number  $x$ , then the reciprocal of  $y$  will be
- A)  $x$       B)  $y$       C)  $\frac{x}{y}$       D)  $\frac{y}{x}$
77. Multiplicative inverse of a negative rational number is
- A) A positive rational number      B) A negative rational number
- C) 0      D) 1
78. The value of  $\left(\frac{2}{5}\right)^{-2}$  is
- A)  $\frac{4}{5}$       B)  $\frac{4}{25}$       C)  $\frac{25}{4}$       D)  $\frac{5}{2}$

79. For a non-zero integer  $x$ ,  $x^7 \div x^{12}$  is equal to
- A)  $x^5$                       B)  $x^{19}$                       C)  $x^{-5}$                       D)  $x^{-19}$
80. Coefficient of  $y$  in the term of  $\frac{-y}{3}$  is
- A)  $-1$                       B)  $-3$                       C)  $-\frac{1}{3}$                       D)  $\frac{1}{3}$
81. Square of  $9x - 7xy$  is
- A)  $81x^2 + 49x^2y^2$                       B)  $81x^2 - 49x^2y^2$   
C)  $81x^2 + 49x^2y^2 - 126x^2y$                       D)  $81x^2 + 49x^2y^2 - 63x^2y$
82. The value of  $(3x^3 + 9x^2 + 27x) \div 3x$  is
- A)  $x^2 + 9 + 27x$                       B)  $3x^2 + 3x^2 + 27x$                       C)  $3x^3 + 9x^2 + 9$                       D)  $x^2 + 3x + 9$
83. The value of  $(a + b)^2 + (a - b)^2$  is
- A)  $2a + 2b$                       B)  $2a - 2b$                       C)  $2a^2 + 2b^2$                       D)  $2a^2 - 2b^2$
84. The value of  $x$  for which the expressions  $3x - 4$  and  $2x + 1$  become equal is
- A)  $-3$                       B)  $0$                       C)  $5$                       D)  $1$
85. If  $a$  and  $b$  are positive integers, then the solution of the equation  $ax = b$  has to be always
- A) Positive                      B) Negative                      C) One                      D) Zero
86. If three angles of a quadrilateral are each equal to  $75^\circ$ , then the fourth angle is
- A)  $150^\circ$                       B)  $135^\circ$                       C)  $45^\circ$                       D)  $75^\circ$
87. What is the sum of all angles of a hexagon
- A)  $180^\circ$                       B)  $360^\circ$                       C)  $540^\circ$                       D)  $720^\circ$
88. Data represented using circles is known as
- A) Bar graph                      B) Histogram                      C) Pictograph                      D) Pie chart

89. A coin is tossed three times. The number of possible outcomes is

- A) 3                      B) 4                      C) 6                      D) 8

90.  $-5 - 3[-7 - (-6)]^2$

- A) 5                      B) 3                      C) -3                      D) -8

91.  $\frac{\sqrt{81} \times \sqrt[3]{-125}}{-3 + (-3) - 3}$

- A) -5                      B) 5                      C) -15                      D) -9

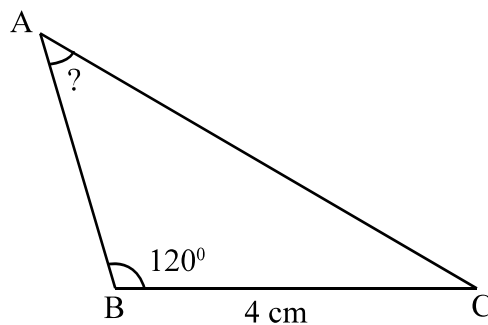
92.  $\frac{5}{7} + \frac{3}{7} \times \frac{14}{24} = x$  then find x

- A)  $\frac{28}{27}$                       B)  $\frac{27}{28}$                       C)  $\frac{7}{28}$                       D)  $-\frac{27}{28}$

93.  $6.75 \times 5.5 + 5.5 \times 3.25$

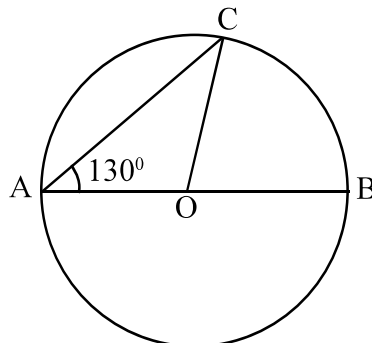
- A) 55                      B) 0.55                      C) 550                      D) 5.5

94. In the figure  $\angle A = \angle C$ . Also  $\angle B = 120^\circ$  and  $BC = 4$  cm then  $\angle A$ ?



- A)  $60^\circ$                       B)  $40^\circ$                       C)  $90^\circ$                       D)  $30^\circ$

95. In the figure 'O' is the centre of the circle and  $\angle OAC = 30^\circ$ . Find  $\angle AOC$ ?



- A)  $60^\circ$                       B)  $30^\circ$                       C)  $90^\circ$                       D)  $120^\circ$



Name .....

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

Date :07-07-2024

# FOUNDATION SCREENING MOCK TEST SERIES

|                                 |                            |                                 |
|---------------------------------|----------------------------|---------------------------------|
| <b>FN24<sub>d</sub>/TP/PCBM</b> | <b>P + C + B + M - KEY</b> | <b>Class IX (VIII Studying)</b> |
|---------------------------------|----------------------------|---------------------------------|

### PHYSICS

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

### CHEMISTRY

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

### BIOLOGY

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

### MATHEMATICS

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