Name .....
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FOUNDATION MOCK TEST

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

Date : 07-07-2024

25FTP/P	*PHYSICS+CHEMISTRY+BIOLOGY+MATHS*	Class X(IX Studying)

PHYSICS

1. Identify the situation, where force of friction is greater

   A) A ball moving through a rough surface B) A ball moving through an inclined plane

   C) A ball moving through a smooth surface D) All of above

2. Mass of object is 10 kg. What is its weight on the earth?

   A) 28 N B) 30 N C) 98 N D) 25 N

3. Name the energy possessed by an object due to its motion?

   A) Potential energy B) Solar energy C) Kinetic energy D) Wind energy

4. Expression for acceleration due to gravity in terms of gravitational constant (G). Mass of eath (M) and radius of earth (r)

   A) $g = \frac{GM^2}{R}$ B) $g = \frac{GM}{R^2}$ C) $g = \frac{GR^2}{M}$ D) $g = \frac{R^2}{GM}$

5. Reason for rainbow is ?

   A) Refraction B) Reflection C) Dispersion D) Polarization

6. Image formed by a plane mirror is ;

   A) Real B) Inverted C) Virtual D) Erect

7. The slope of speed-time graph gives;

   A) Speed B) Velocity C) Acceleration D) Momentum

8. The graviational force between two bodies does not depend on

   A) Their separation B) Their masses

   C) The product of their masses D) The medium between the two bodies.

9. What is the average velocity of a car that moved 60 km in 2 hr?

   A) 60 km/hr B) 20 km/hr C) 30 km/hr D) 10 km/hr

10. In case of reflection of light, the angle of incidence (i) and angle of reflection (r) are related as

    A) $i = r$ B) $i < r$ C) $i > r$ D) None of these

11. The initial velocity of a body is ‘u’. It is under uniform acceleration ‘a’ its velocity ‘v’ at any time ‘t’ is give by;

    A) $v = u + at^2$ B) $v = u + \frac{1}{2}at^2$ C) $v = u + at$ D) $v = u$

12. Which of the following is a correct measure of velocity?

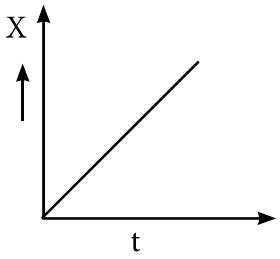
A) 50 m/s B) 50 m^2/s C) 50m/s^2 D) 50 N

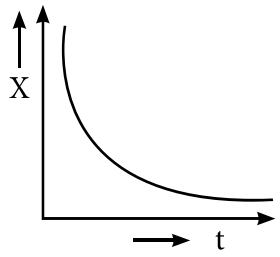
13. Name the principle used in designing ships and submarines

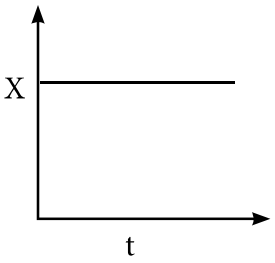
A) Archimedes principle B) Gauss theorem

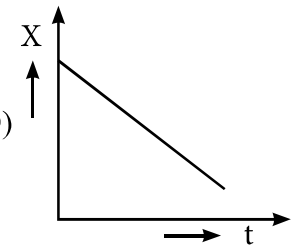
C) Pauli's exclusion principle D) First law of motion

14. Identify the position time graph for an object which is at rest

A) 

B) 

C) 

D) 

15. Joule is related to energy in the same way 'Pascal' is related to ?

A) Mass B) Pressure C) Density D) Purity

16. An object weighs 20 N when measured on the surface of the earth. What would be its weight measured on the surface of the moon?

A) 2.5 N B) 3.33 N C) 1.53 N D) 8.25 N

17. When an object moves in a circular path with uniform speed, its motion is called.....

A) Uniform motion B) Non uniform motion

C) Uniform acceleration D) None of the above

18. Select the vector quantity from the following;

A) Time B) Distance C) Speed D) Velocity

19. If the athlete takes t seconds to go once around the circular path of radius r, the speed v is ;

A) $v = 2\pi rt$ B) $v = \frac{t}{2\pi r}$ C) $v = \frac{2\pi r}{t}$ D) $v = \frac{2\pi}{rt}$

20. A car accelerates uniformly from 18 km/hr to 36 km/hr in 5 s. Calculate the distance covered by the car in that time.

A) 37.5 m B) 25.1 m C) 20.20 m D) 100m

21. Due to which force a rolling ball stops after some time?

A) Gravitational force B) Electrtostatic force

C) Frictional force D) All of the above

22. The splitting of light into its constituent colours is known as ;

A) Reflection B) Refraction C) Polarization D) Dispersion

23. Select the correct relation between acceleration and velocity

A) $\text{Velocity} = \text{Acceleration} \times \text{time}$ B) $\text{Velocity} = \frac{\text{Acceleration}}{\text{Time}}$

C) Velocity = Accleration -time D) Velocity = Acceleration +Time

24. SI unit of power is :

A) Watt B) Joule C) Newton D) Metre

25. Select the correct relationship between force and acceleration

A) $F = \frac{\text{mass}}{\text{acceleration}}$ B) $\text{Force} = \text{mass} \times \text{acceleration}$

C) $\text{Force} = \frac{\text{acceleration}}{\text{mass}}$ D) $\text{Force} = \left(\text{mass} \times \text{acceleration}\right)^{1/2}$

CHEMISTRY

26. Separation using separating funnel technique is used to separate

A) Miscible liquid with greater difference in boiling point

B) Tighter particles from heavier particles

C) Immiscible liquids

D) More than one solute dissolved in same solvent

27. Sweaters and blankets are prepared from the synthetic fibre called

A) Nylon B) Acrylic C) Rayon D) Cotton

28. Which substance is formed by the carbonisation of dead vegetation

A) Coke B) Coal gas C) Coal D) Coal tar

29. Which of the following is a chemical change

A) Melting of butter B) Boiling of milk C) Souring of milk D) Evaporation of water

30. The number of atoms in ozone molecule is

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

31. Among the given set of substances pure substances are

Salt solution, sugar, copper gold chain, sodium, milk shake

A) Sugar, copper

B) Sugar, gold chain, copper

C) Sugar, copper, sodium

D) Salt solution, milk shake

32. Decomposition of calcium carbonate give rise to

A) O_2 B) H_2 C) CO_2 D) H_2O

33. pH value of an acidic substance is always

A) Less than 7 B) Greater than 7 C) Equal to 7 D) Greater than 14

34. To a solution of acidic nature taken in a beaker two drops of phenolphthalein is added.What would be the observation.

A) Solution remains colourless

B) Solution turns red

C) Solution turns pink

D) Precipitation occurs

35. Type of chemical bond present in calcium fluoride is

A) Ionic bond B) Covalent bond C) Coordinate bond D) Hydrogen bond

36. Which of the following is not a component of petroleum

A) Paraffin wax B) Petrol C) Lubricating oil D) Bee wax

37. Matter is anything that

A) Has mass only

B) Need space to occupy

C) Has mass and volume

D) Has mass and need space to occupy

38. Polycot is a mixture of

A) Polyester + Terylene

B) Polyester + Wool

C) Polyester + cotton

D) Polythene + Terylene

39. Sonu is carrying out a chemical reaction between zinc and dil.HCl. She knows that the evolved gas will be hydrogen. Which of the following will be a characteristic of hydrogen?

A) Turns lime water milky

B) Burn with a pop sound

C) Extingushes the flame of matchstick

D) Supports the burning of the flame of match stick

40. Graphite is an allotrope of ..... with the property of .....

A) Carbon, electrical conductivity B) Germanium, electrical insulation

C) Carbon, hardness D) Calcium, electrical insulation

41. Sonority is the ability of metals to.....

A) Beaten into thin sheets B) Be drawn into thin wires

C) Conduct ions through them D) Produce sound

42. Compressed natural gas is

A) Easy to transport through pipes B) Stored under low pressure

C) Not used as a fuel D) Obtained from coal

43. Rubber is a polymer formed by the combination of monomer molecules called

A) Glucose B) Isoprene C) Propene D) Ethene

44. Copper wires are generally used in electrical circuits. The physical properteis used here are

A) Malleability and ductility B) Malleability and sonority

C) Hardness and thermal conductivity D) Ductility and electrical conductivity

45. The process of making yarn from fibres is called

A) Twinning B) Kniffing C) Weaving D) Spinning

46. Which of the following is not an inert gas?

A) Hydrogen B) Helium C) Argon D) Neon

47. A tea bag immersed in a cup of hot water changes it's colour. Name the property responsible for it.

A) Osmosis B) Diffusion C) Dispersion D) Refraction

48. When vapours of Naphthalene are called, then change directly into solid form. This process is known as

A) Crystallisation B) Condensation C) Deposition D) Vapourisation

49. ..... is a colourless gas with the smell of rotton eggs

A) H_2O B) HF C) H_2S D) N_2O

50. Materials which are obtained from nature are called natural resources. Which of the following is not a natural resource?

A) Soil B) Water C) Mineral D) Plastic

BIOLOGY

51. Sunflower is a .....

A) Cereals crop B) Oil seed crop C) Root crop D) Vegetable crop

52. Which is the by-product of honey comb?

A) Grease B) Wax C) Vitamin D) Sugar

53. Which of the following is a parasite?

A) Plasmodium B) Paramoecium C) Amoeba D) Codonosiga

54. Bacteria which convert Nitrite into Nitrate

A) Acetobacter B) Nitrobacter C) Nitrosome D) Psedomonas

55. What is the cause of Deforestation

A) Intensive agriculture B) Construction of a dam

C) Urbanization D) All of the above

56. Which of the following is a threatened species

A) Dodo B) Dinosaur C) The giant panda D) All of the above

57. Trypanosoma brucci causes

A) Infection B) Amoebic dysentery C) Sleeping sickness D) None of these

58. Which one do not have cellular structure?

A) Viruses B) Plants C) PPLO D) Animals

59. Nucleus is concerned with

A) Respiration B) Secretion

C) Control of cellular activites D) Protein synthesis

60. Bacteria are considered more as plants than animals because of the presence of

A) DNA B) Plasma membrane C) Cell wall D) Mitochondria

61. Organism which show binary fission is

A) Yeast B) Spirogyra C) Amoeba D) All of the above

62. Pollution affects

A) Plants B) Animals C) Human beings D) All of these

63. Incomplete combustion of carbon forms

A) CO_2 B) H_2O vapours C) Carbon D) CO

64. Fertigation is a new method to apply

A) Manures B) Fertilizers C) Water D) Both B and C

65. For what blue revolution refers to

A) Wheat B) Egg C) Fish D) Oil

66. Cell secretion is done by

A) Plastids B) Endoplasmic reticulum

C) Golgi apparatus D) Nucleus

67. Chloroplast are formed in

A) All cells B) All eukaryotic cells

C) Only in animal cells D) None of these

68. In all the site of oxidation is

A) Ribosome B) Golgi apparatus C) Mitochondria D) Endoplasmic reticulum

69. In fishes fertilization is ,

A) External B) Internal C) Both of above D) None of above

70. Which of the following is a mixed gland?

A) Pituitary B) Thyroid C) Pancreas D) Ovary

71. Which of the following is a female sex hormone?

A) Testosterone B) Thyroxine C) Estrogen D) Adrenaline

72. Fertilization in human beings occurs in

A) Uterus B) Fallopian tubes C) Cervix D) Vagina

73. Main acid present in acid rain is

A) H_2SO_4 B) HNO_3 C) CH_3COOH D) Both A and B

74. Which is not a type of binary fission

A) Circular fission B) Irregular fission C) Longitudinal fission D) Transverse fission

75. Functions of endoplasmic reticulum is

A) Support B) Detoxification C) Lipid synthesis D) All of the above

MATHEMATICS

76. $(a+b)\times(a-b)$ is equal to

A) a^2-b^2 B) a^2+b^2+2ab C) $a+b$ D) $a-b$

77. $125^0+3^0+6^0+3^1$ is equal to

A) 6 B) 0 C) 1 D) 3

78. $P(x)=6x^4+3x^3-6x^2+7$, find P(1)

A) 7 B) 10 C) –6 D) 1

79. Find the value of $\frac{3^4\times9^2\times27^2}{3^{10}}$?

A) 3 B) 3^2 C) 3^4 D) 3^3

80. Find $81^{0.2}\times81^{0.3}$?

A) 81 B) 3 C) 81^5 D) 9

81. What is the perimeter of the square of sides 20cm?

A) 80 cm^2 B) 80 cm C) 40 cm D) 40 cm^2

82. Choose the whole number from the following

A) 0 B) –1 C) $\frac{1}{2}$ D) $-\frac{1}{7}$

83. On dividing $6\sqrt{27}$ by $2\sqrt{3}$ we get,

A) $3\sqrt{9}$ B) 6 C) 9 D) None of these

84. $7x+2=0$ will have

A) Unique solution B) Two solutions C) Infinitely many solutions D) No solutions

85. A triangle in which two sides are equal is called

A) Scalene triangle B) Equilateral triangle C) Isosceles triangle D) None of these

86. A median of a triangle divides it into two

A) Congruent triangles B) Isosceles triangles C) Right triangles D) Equal area triangles

87. A rhombus can be a

A) Parallelogram B) Trapezium C) Kite D) Square

88. Any point on the x-axis is of the form

A) (x,y) B) (0, y) C) (x, 0) D) (x, x)

89. The co-efficient of x^2 in $3x^3 + 2x^2 - x + 1$ is

A) 1 B) 2 C) 3 D) -1

90. The sum of all the angles of a quadrilateral is equal to

A) 180^0 B) 270^0 C) 360^0 D) 90^0

91. Find the value of k if x = 1, y = 2 is a solution of the equation $2x + 3y = k$

A) 5 B) 6 C) 7 D) 8

92. Angles of a triangle are in the ratio 2:4:3, The smallest angle of the triangle is ,

A) 20^0 B) 40^0 C) 60^0 D) 80^0

93. If the co-ordinates of a point are (0, –4) then it lies in

A) x axis B) y axis C) at origin D) None of these

94. Any point on line x = y is of the form

A) $(k, -k)$ B) $(0, k)$ C) $(k, 0))$ D) (k, k)

95. An obtuse angle is

A) Less than 90^0 B) Greater than 90^0 C) Equal to 90^0 D) Equal to 180^0

96. $x^2 - 2x + 7$ is a polynomial in

A) One variable B) Two variables C) Three variables D) None of these

97. If a, b and c are the lengths of three sides of a triangle then

A) $a + b > c$ B) $a - b > c$ C) $a + b = c$ D) $a - b = c$

98. The degree of $4x^3 - 12x^2 + 3x + 9$ is

A) 0 B) 1 C) 2 D) 3

99. $8 \times 8 \times 8 \times 8 \times 8$ is equal to

A) 8^5 B) 8^3 C) 8^0 D) 8^6

100. The side length of 2cm, 3cm and 6 cm can be sides of

A) Scalene triangle B) Isosceles triangle

C) Equilateral triangle D) None of these

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25FTP/P	*PHYSICS+CHEMISTRY+BIOLOGY+MATHS*	Class X(IX Studying)

PHYSICS		CHEISTRY		BIOLGY		MATEMAT-ICS	
1.	A	26.	C	51.	B	76.	A
2.	C	27.	B	52.	B	77.	A
3.	C	28.	C	53.	A	78.	B
4.	B	29.	C	54.	B	79.	C
5.	C	30.	B	55.	D	80.	D
6.	C	31.	C	56.	C	81.	B
7.	C	32.	C	57.	B	82.	A
8.	D	33.	A	58.	A	83.	C
9.	C	34.	A	59.	C	84.	A
10.	A	35.	A	60.	C	85.	C
11.	C	36.	D	61.	C	86.	D
12.	A	37.	D	62.	D	87.	D
13.	A	38.	C	63.	D	88.	C
14.	C	39.	B	64.	D	89.	B
15.	B	40.	A	65.	C	90.	C
16.	B	41.	D	66.	C	91.	D
17.	A	42.	A	67.	A	92.	B
18.	D	43.	B	68.	C	93.	B
19.	C	44.	D	69.	A	94.	D
20.	A	45.	D	70.	C	95.	B
21.	C	46.	A	71.	C	96.	A
22.	D	47.	B	72.	B	97.	A
23.	A	48.	C	73.	D	98.	D
24.	A	49.	C	74.	A	99.	A
25.	B	50.	D	75.	D	100.	A