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Score: 19/95 (20.00%)

Code: 1655

1. Which machine converts mechanical energy into electrical energy?

- A) Battery  
C) Heater  
**B) Generator**  
D) Iron box (Incorrect)

2. Which is the unit of current?

- A) Ampere**  
C) Ohm (Incorrect)  
B) Volt  
D) Watt

3. Which is the unit of resistance?

- A) Ampere  
**C) Ohm**  
B) Volt  
D) Watt (Incorrect)

4. What is the flow of electrons in any conductor?

- A) Voltage (Incorrect)  
C) Resistance  
**B) Current**  
D) Power

5. Which property of a substance is opposing the flow of electric current?

- A) Current  
**C) Resistance**  
B) Voltage  
D) EMF (Incorrect)

6. Which is very good conductor?

- A) Copper**  
C) Wrought iron (Incorrect)  
B) Cast iron  
D) Steel

7. Which is mineral insulator

- A) Glass  
**C) Mica (Correct)**  
B) Quartz  
D) Porcelain

8. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?

- A) 11 ohms  
**C) 17 ohms**  
B) 7 ohm  
D) 1/17 ohms (Incorrect)

9. What is the total resistance if two resistances of 4 ohms and 6 ohms are connected in parallel?

- A) 10  
C) 5  
**B) 2.4**  
D) 4 (Incorrect)

10. Which is same in series connection of resistors in a circuit?

- A) Current**  
B) Voltage

- C) Resistance (Incorrect)  
D) Power

11. Which law states that at constant temperature the current passing through a closed circuit is directly proportional to the potential difference and inversely proportional to the resistance?

- A) Ohm's law**  
C) Newton's law  
B) Lenz's law  
D) Hooke's law (Incorrect)

12. What is the resistance?

<br>  
I = 11.5 Amps  
<br>  
V = 380 Volts  
<br>  
R = \_\_\_\_\_ Ohms

- A) 13 ohms  
**C) 33 ohms (Correct)**  
B) 23 ohms  
D) 43 ohms

13. What is the current?

<br>  
R = 50 Ohms  
<br>  
220 Volts  
<br>  
I = \_\_\_\_\_ Amps

- A) 4.1 Amps  
C) 4.3 Amps  
B) 4.2 Amps (Incorrect)  
**D) 4.4 Amps**

14. What is the voltage?

<br>  
R = 250 Ohms  
<br>  
I = 0.44 Amps  
<br>  
V = \_\_\_\_\_ Volts

- A) 100 Volts (Incorrect)  
C) 108 Volts  
B) 105 Volts  
**D) 110 Volts**

15. Which statement is correct according to ohm's law?

- A)  $I = 1/V$   
**C)  $I = V/R$  (Correct)**  
B)  $I = R$   
D)  $I = R/V$

16. What is the filament resistance if a 6 volt bulb draws a current of 0.5 Amps?

- A) 12 W**  
C) 3 W  
B) 10 W (Incorrect)  
D) 1.2 W

17. How much watt second in 1 watt hour?

- A) 1000 watt sec (Incorrect) B) 2000 watt sec  
C) 3600 watt sec D) 4000 watt sec

18. What is the power if an emf of one volt causes a current flow of 1ampere?

- A) 1 watt (Correct) B) 1 kilowatt  
C) 1 HP D) 1 Kilowatt hour

19. Which is equal to electric power?

- A)  $R^2 I$  watts B)  $I^2 R$  watts  
C)  $RI$  (Incorrect) D)  $IRA$

20. How much power does it consumes if an electric heater draws a current of 10 amps at 200 volts?

- A) 2000 watts B) 2010 watts  
C) 2020 watts D) 2030 watts (Incorrect)

21. What is the resistance of an electric iron if the rating of electric iron is 220 V and 500 watts?

- A) 94.8 ohms B) 95.8 ohms (Incorrect)  
C) 96.8 ohms D) 97.8 ohms

22. What is the voltage of the immersion heater?

$P = 500$  watts

$I = 2.27$  Amps

$V =$  \_\_\_\_ Volts

- A) 200.3 volts B) 210.3 volts  
C) 220.3 volts D) 230.3 volts (Incorrect)

23. What is the unit of intensity of magnetic field?

- A)  $\text{wb/m}$  B)  $\text{m/wb}$   
C) Hertz (Incorrect) D) Coloumb

24. Which law states about electromagnetic induction?

- A) Ohm's law B) Hooke's law  
C) Lenz's law D) Faraday's law (Correct)

25. What is the formual for induced emf?

- A)  $B^2 L \sin \theta$  volts B)  $BL \sin \theta$  volts  
C)  $BLV \sin \theta$  volts (Correct) D)  $B^2 L \sin \theta$  volts

26. What does EMF stands for?

- A) Electronic Magnetic Force B) Electro Motive Force  
C) Electro Magnetic Force D) Electromated Force (Incorrect)

27. Which is the example for statically induced emf?

- A) Generator B) Motor (Incorrect)  
C) Transformer D) Refrigerator

28. Which is the example for dynamicaly induced Emf?

- A) Motor B) Generator  
C) Car D) Motor bike (Incorrect)

29. Which is the unit electrical power?

- A) Volts (Incorrect) B) Ohms  
C) Watts D) Ampere

30. What is the current Flow in the bulb?

$P = 550$  watts

$R = 22$  Ohms

$I =$  \_\_\_\_ Amps

- A) 2 Amps (Incorrect) B) 3 Amps  
C) 4 Amps D) 5 Amps

31. What is the power required?

$I = 0.455$  Amps

$R = 484$  Ohms

$P =$  \_\_\_\_ Watts

- A) 98.2 watts B) 99.2 watts (Incorrect)  
C) 100.2 watts D) 101.2 watts

32. What is the rated power if an adjustable resistor bears the following label 1.5 k ohms/ 0.08A?

- A) 9.2 watts (Incorrect) B) 9.4 watts  
C) 9.6 watts D) 9.8 watts

33. How much voltage will be required to illuminate a 40 watts fluorescent lamp draws a current of 0.10 amperes?

- A) 390 volts B) 395 volts  
C) 400 volts D) 405 volts (Incorrect)

34. How many hours will take for a 100 watts bulb to consume 1 kwh energy?

$W = 1$  Kwh

$P = 100$  Watts

$t =$  \_\_\_\_ Hours

- A) 10 hours (Correct) B) 12 hours  
C) 18 hours D) 24 hours

35. What is termed as the quantity of matter contained in a body?

- A) Density  
**C) Mass**  
B) Volume  
D) Specific gravity (Incorrect)

36. What is the force with which a body is attracted by the earth towards its centre?

- A) Mass  
C) Volume  
**B) Weight (Correct)**  
D) Density

37. What is called mass per unit volume of a substances?

- A) Mass  
**C) Density**  
B) Weight (Incorrect)  
D) Volume

38. What is called the ratio between the density of a substances density of water at 4 Degree Centigrade?

- A) Density (Incorrect)  
C) Mass  
**B) Specific gravity**  
D) Weight

39. What is the density of aluminium?

- A) 2.7 g/cm<sup>3</sup> (Correct)**  
C) 4.7 g/cm<sup>3</sup>  
B) 3.7 g/cm<sup>3</sup>  
D) 5.7 g/cm<sup>3</sup>

40. What is the mass if the density of a body is 7.6 g/cm<sup>3</sup> and its volume is 25 cm<sup>3</sup>?

- A) 190 grams**  
C) 210 grams (Incorrect)  
B) 200 grams  
D) 220 grams

41. What is the specific gravity of the solid, if density of the solid is 19.5 g/cm<sup>3</sup>?

- A) 8  
C) 19  
B) 18.5  
**D) 19.5 (Correct)**

42. What is the density (r) in g/cm<sup>3</sup> of an iron cube, if it weighs (W) 4.8 kg and volume (V) is 640 cm<sup>3</sup>?

- A) 6.6 g/cm<sup>3</sup>  
C) 7.2 g/cm<sup>3</sup>  
B) 6.9 g/cm<sup>3</sup> (Incorrect)  
**D) 7.5 g/cm<sup>3</sup>**

43. What is the volume (V) of mercury in cm<sup>3</sup>, if mass (m) of mercury is 1 kg and density (r) is 13.6 g/cm<sup>3</sup>?

- A) 73.53 cm<sup>3</sup>**  
C) 73.33 cm<sup>3</sup>  
B) 73.43 cm<sup>3</sup>  
D) 73.23 cm<sup>3</sup> (Incorrect)

44. What is the mass in gram, if a force of 15 dynes acting on a mass m producing an acceleration of 2.5 cm/sec<sup>2</sup>?

- A) 9 grams  
B) 8 grams (Incorrect)

C) 7 grams

**D) 6 grams**

45. What is the specific gravity of the metal, if the piece of metal weighs 150 grams in air and 125 grams in water?

- A) 6**  
C) 15  
B) 10 (Incorrect)  
D) 25

46. What is the volume of mercury in cm<sup>3</sup>, if the mass (m) of mercury is 136 grams (g) and density (r) of mercury is 13.6 g/cm<sup>3</sup>?

- A) 136 cm<sup>3</sup>  
C) 10.6 cm<sup>3</sup> (Incorrect)  
B) 13.6 cm<sup>3</sup>  
**D) 10.0 cm<sup>3</sup>**

47. What is the block weighs (W) in kg, if volume (V) is 320 cm<sup>3</sup> and density 8.9 g/cm<sup>3</sup>?

- A) 2.948 kg (Incorrect)  
C) 2.648 kg  
**B) 2.848 kg**  
D) 2.448

48. What is the specific gravity of the metal, if it weighs 6.5 kgf in air and 3.5 kgf in water?

- A) 6.166  
C) **2.166 (Correct)**  
B) 3.166  
D) 1.166

49. What is the weight force of a car has a mass of 800 kg? (Take g = 9.81 m/sec<sup>2</sup>)

- A) 7848 Newton**  
C) 7847 Newton  
B) 7748 Newton  
D) 7487 Newton (Incorrect)

50. Which one is non-metal?

- A) Mercury  
C) Brass (Incorrect)  
B) **Graphite**  
D) Iron

51. Which metal contains iron as a major content?

- A) Brass metal  
C) Zinc (Incorrect)  
B) Bronze metal  
**D) Ferrous metal**

52. What is the name of the metal which does not contain iron?

- A) Ferrous metals  
C) Insulating metals  
B) **Non-ferrous metals (Correct)**  
D) Non-Insulating metals

53. Which one of the following properties is the mechanical properties of metal?

- A) Fusibility  
C) Corrosion  
B) **Ductility**  
D) Structure (Incorrect)

54. Which is brittle metal?

- A) Cast iron**  
C) Mild steel  
B) Steel (Incorrect)  
D) Alloy steel

55. Which mechanical property of a metal offers resistance to elastic deformation in a cutting tool?

- A) Ductility  
**C) Hardness**  
B) Malleability (Incorrect)  
D) Toughness

56. Which property of material enables to formation of permanent deformation without fracture?

- A) Elasticity (Incorrect)  
C) Ductility  
**B) Plasticity**  
D) Brittleness

57. Which property of metal has its power of returning to its original shape after the applied force is released?

- A) Malleability  
**C) Elasticity**  
B) Tenacity (Incorrect)  
D) Plasticity

58. Which property of a metal possessed by it melts when heat is applied?

- A) Conductivity  
**C) Fusibility (Correct)**  
B) Malleability  
D) Tenacity

59. Which alloy used in electric lamp as filament?

- A) Cobalt  
**C) Tungsten**  
B) Vanadium (Incorrect)  
D) Silicon

60. What metals contained in brass alloy?

- A) Copper and aluminium  
**C) Copper and zinc**  
B) Copper and lead  
D) Copper and tin (Incorrect)

61. Which cast iron cannot be welded?

- A) Grey cast iron  
C) Malleable cast iron  
**B) White cast iron**  
D) Nodular cast iron (Incorrect)

62. Which metal cannot be forged?

- A) Alloy steel  
C) Steel  
B) Mild steel (Incorrect)  
**D) Cast iron**

63. Which metal is widely used for making casting of machinery parts?

- A) Grey cast iron**  
C) Malleable cast iron (Incorrect)  
B) White cast iron  
D) Wrought iron

64. Which furnace is used to get pig iron from iron ore?

- A) Mild steel - Rever battery  
**C) Blast furnace**  
B) Electric furnace  
D) Cupola (Incorrect)

65. What is the name of furnace to obtained cast iron?

- A) Cupola**  
B) Mild steel - Blast furnace

C) Steel - Rever battery  
(Incorrect)

D) Alloy metal - Electric furnace

66. What is the other name of low carbon steel?

- A) Low alloy steel  
C) High speed steel  
B) High alloy steel  
**D) Mild steel (Correct)**

67. What is the carbon percentage in medium carbon steel?

- A) 0.05% to 0.15%  
**C) 0.25% to 0.5%**  
B) 0.15% to 0.25% (Incorrect)  
D) 0.5% to 1.5%

68. What is the carbon percentage in low carbon steel?

- A) 0.02% to 0.03%  
C) 0.25% to 0.50% (Incorrect)  
**B) 0.15% to 0.25%**  
D) 0.50% to 1.50%

69. What is the carbon percentage in high carbon steel?

- A) 0.02% to 0.03%  
C) 0.25% to 0.50%  
B) 0.15% to 0.25% (Incorrect)  
**D) 0.50% to 1.50%**

70. What is the ore of aluminium?

- A) Hematite (Incorrect)  
**C) Bauxite**  
B) Mallatite  
D) Lemonite

71. Which property of a metal enables it by which it can be drawn out into wires under tension without rupture?

- A) Ductility**  
C) Hardness (Incorrect)  
B) Malleability  
D) Brittleness

72. Which among the following is an insulator?

- A) Copper (Incorrect)  
C) Silver  
B) Aluminium  
**D) Mica**

73. Which rubber is used as insulator for power cables and control wires?

- A) Butyl (Incorrect)  
**C) Silicon**  
B) Hypalone  
D) Nitrite butadiene

74. Which alloy steel is used to make permanent magnets?

- A) Silicon steel  
C) Vanadium steel  
B) Manganese steel (Incorrect)  
**D) Cobalt steel**

75. Which insulator is used in over head lines?

- A) Mica (Incorrect)  
C) P.V.C  
B) Rubber  
**D) Porcelain**

76. Which insulating material is used for making switches?

- A) Porcelain  
**C) Bakelite**  
B) PVC (Incorrect)  
D) Ebonite

77. What is the name of the property of an insulation that should brake down or puncture on application of high voltage?

- A) **Di-electric strength (Correct)**      B) Specific resistance  
C) Mechanical strenth      D) Non absorption

78. Which alloy steel is using for making precious instrument?

- A) Silicon steel (Incorrect)      B) Manganese steel  
C) **Invar steel**      D) Vanadium

79. Which steel is used for making files and cold chisel?

- A) Low carbon steel      B) Midium carbon steel  
C) **High carbon steel (Correct)**      D) Stainless steel

80. What is the area of a square whose side is 18 cm?

- A) 26 cm<sup>2</sup> (Incorrect)      B) 36 cm<sup>2</sup>  
C) 72 cm<sup>2</sup>      D) **324 cm<sup>2</sup>**

81. What is the diagonal of a square plate whose side is 28 cm?

- A) 39.29 cm      B) 39.39 cm  
C) 39.49 cm (Incorrect)      D) **39.59 cm**

82. Convert 0.456 decimal fraction into percentage?

- A) 0.456 (Incorrect)      B) 0.0456  
C) **45.6**      D) 0.000456

83. What is the x value for  $x^2 + 62 = 126$ ?

- A) 4      B) 6  
C) **8**      D) 10 (Incorrect)

84. What is the square root of decimal number 550.37?

- A) 21.26      B) 22.26 (Incorrect)  
C) 22.46      D) **23.46**

85. What is the length L2, if total length (L) is 2.75 metre and  $L1:L2 = 2:3$ ?

- A) 1.1 metre      B) 1.25 metre  
C) **1.65 metre (Correct)**      D) 1.75 metre

86. How many days a mechanic takes to assemble 64

machines if he assembles 8 machines in 3 days?

- A) 20 days      B) 22 days (Incorrect)  
C) **24 days**      D) 26 days

87. What will be the rpm of smaller gear if a 180 mm dia meshes with 60 mm dia gear and the bigger gear makes 60 rpm?

- A) 120 rpm (Incorrect)      B) 140 rpm  
C) 160 rpm      D) **180 rpm**

88. What is the percentage of copper if the casting weight of copper 42.3 kg and tin weight 2.7 kg?

- A) Cu 92%      B) **Cu 94%**  
C) Cu 96%      D) Cu 98% (Incorrect)

89. A motor cycle tyre is sold for Rs 300/- what is the purchase price if 25% profit is added to it.

- A) Rs 200      B) Rs 220 (Incorrect)  
C) **Rs 240**      D) Rs 260

90. What is the decimal fraction of conversion of 18.5%?

- A) **0.185**      B) 0.175  
C) 0.165 (Incorrect)      D) 0.195

91. What are the two classifications of system of units?

- A) British and Metric (Incorrect)      B) Gravitational and non-gravitational  
C) **Fundamental and derived**      D) Metric and International

92. What are fundamental units?

- A) Length, Mass, Volume      B) **Length, Mass, Time**  
C) Length, Mass, Area (Incorrect)      D) Length, Pressure, Volume

93. What denotes letter M in MKS system?

- A) Mile (Incorrect)      B) **Meter**  
C) Millimeter      D) Micron

94. How many millimetres are there in 1 inch?

- A) 2.54 mm      B) **25.4 mm (Correct)**  
C) 24.5 mm      D) 2.45 mm

95. What is the LCM of 12, 18, 6, 36?

- A) 12      B) 18  
C) **36 (Correct)**      D) 42