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Score: 12/50 (24.00%)

Code: 6352

1. Which is the unit of resistance?

- A) Ampere
 B) Volt
C) Ohm (Correct)
 D) Watt

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

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

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

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

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

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

5. What is the voltage of the immersion heater?

$P = 500 \text{ watts}$

$I = 2.27 \text{ Amps}$

$V = \underline{\hspace{2cm}}$ Volts

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

6. Which law states about electromagnetic induction?

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

7. Which is the example for statically induced emf?

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

8. What is the current Flow in the bulb?

$P = 550 \text{ watts}$

$R = 22 \text{ Ohms}$

$I = \underline{\hspace{2cm}}$ Amps

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

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

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

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

- A) Mass
 B) Weight
 C) Volume
 D) Density

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

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

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

- A) 73.53 cm^3**
 B) 73.43 cm^3 (Incorrect)
 C) 73.33 cm^3
 D) 73.23 cm^3

13. 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^2 ?

- A) 9 grams
 B) 8 grams
 C) 7 grams
D) 6 grams (Correct)

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

- A) 136 cm^3
 B) 13.6 cm^3
 C) 10.6 cm^3
D) 10.0 cm^3 (Correct)

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

- A) 6.166
 B) 3.166
C) 2.166
 D) 1.166 (Incorrect)

16. Which metal contains iron as a major content?

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

17. Which mechanical property of a metal offers resistance to

elastic deformation in a cutting tool?

- A) Ductility
B) Malleability
C) Hardness (Correct)
D) Toughness

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

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

19. Which cast iron cannot be welded?

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

20. Which metal cannot be forged?

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

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

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

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

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

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

- A) **Cupola (Correct)**
B) Mild steel - Blast furnace
C) Steel - Rever battery
D) Alloy metal - Electric furnace

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

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

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

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

26. What is the ore of aluminium?

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

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

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

28. What is the area of a rectangle, whose length and breadth are 10cm and 8cm respectively?

- A) 75 cm²
B) **80 cm²**
C) 85 cm²
D) 90 cm²

29. What is the primeter of scalene. Triangle having sides of 40mm, 20mm and 28mm?

- A) 68 mm
B) 78 mm (Incorrect)
C) 88 mm
D) 98 mm

30. What is the cross sectional area of a circular ring of D = 38 mm d = 32mm?

- A) 320 mm² (Incorrect)
B) **330 mm²**
C) 340 mm²
D) 350 mm²

31. What is the area of an ellipse if the major and minor axes are 5 cm and 3 cm respectively?

- A) 27 cm² (Incorrect)
B) 37 cm²
C) 47 cm²
D) 57 cm²

32. What is the capacity of a conical tank of radius 2 m and height 5m?

- A) 11 m³ (Incorrect)
B) **21 m³**
C) 31 m³
D) 41 m³

33. What is the formula for velocity?

- A) Distance covered/Time
B) **Displacement/Time**
C) Change in velocity/Time
D) Change of momentum/Time

34. What is called if a body posses only magnitude or size alone?

- A) Speed (Incorrect)
B) Velocity
C) Vector quantity
D) **Scalar quantity**

35. What is called if a body posses both magnitude and direction of velocity?

- A) Speed
B) Velocity (Incorrect)
C) Vector quantity
D) Scalar quantity

36. What is the rate of change of displacement of a body?

- A) Body at rest (Incorrect)
B) Body at motion
C) Speed
D) **Velocity**

37. What is called if a body changes its position with respect to its surroundings?

- A) Body at rest (Incorrect)
B) **Body at motion**
C) Speed
D) Velocity

38. What is velocity of a body travels a distance of 168 metres in a line in 21 seconds?

- A) 6 m/sec
C) 10 m/sec
B) **8 m/sec (Correct)**
D) 12 m/sec

39. What is the formula for acceleration?

- A) Metre/second
C) Metre/minute
B) **Metre/second² (Correct)**
D) Metre/hour

40. How many newtons for 1 kilogram?

- A) 981 Newtons (Incorrect)
C) **9.81 Newtons**
B) 98.1 Newtons
D) 0.981 Newtons

41. How many watts for 1 horse power in British system?

- A) 726 watts
C) **746 watts**
B) 736 watts (Incorrect)
D) 756 watts

42. How much work done in one hour, if a pump can raise 100 liters of water through a height of 200 meters in one minutes?

- A) 12 x 104 kg meter
C) 12 x 106 kg meter
B) **12 x 105 kg meter**
D) 12 x 107 kg meter

43. What is the potential energy, if a body of mass 250 kg is at a height of 30 metre?

- A) 72.57 KJ
C) 74.57 KJ
B) **73.57 KJ (Correct)**
D) 75.57 KJ

44. What is the work done in joules if a load of 15.5 kg is lifted through a height of 4.4 metres?

- A) 639 Joules
C) 659 Joules
B) 649 Joules (Incorrect)
D) **669 Joules**

45. What is the kinetic energy of a bullet of mass 5gm travels with a speed of 500 m/sec?

- A) 620 Joules (Incorrect)
C) 630 Joules
B) **625 Joules**
D) 635 Joules

46. What is the square root of 0.017?

- A) 0.001
C) 0.00001
B) **0.13 (Correct)**
D) 0.000001

47. How much is 8% of 40 kg?

- A) 2.2 kg
C) 4.2 kg (Incorrect)
B) **3.2 kg**
D) 5.2 kg

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

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

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

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

50. What is the square root of 529?

- A) 12
C) 33
B) **23 (Correct)**
D) 43