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Score: 38/50 (76.00%)

Code: 6763

1. Which is the unit of resistance?

- A) Ampere
 B) Volt
C) Ohm
 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 (Correct)
 D) 1/17 ohms

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

- A) Current**
 B) Voltage (Incorrect)
 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 (Correct)**
 B) 10 W
 C) 3 W
 D) 1.2 W

5. What is the voltage of the immersion heater?

$P = 500 \text{ watts}$

$I = 2.27 \text{ Amps}$

$V = \text{ ______ Volts}$

- A) 200.3 volts
 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
C) Transformer (Correct)
 D) Refrigerator

8. What is the current Flow in the bulb?

$P = 550 \text{ watts}$

$R = 22 \text{ Ohms}$

$I = \text{ ______ Amps}$

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

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

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

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

- A) Mass
 B) Weight (Correct)
 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 (Correct)**
 B) 73.43 cm^3
 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 weights 6.5 kgf in air and 3.5 kgf in water?

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

16. Which metal contains iron as a major content?

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

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 (Correct)
D) Plasticity

19. Which cast iron cannot be welded?

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

20. Which metal cannot be forged?

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

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

- A) Grey cast iron**
B) White cast iron
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
C) Blast furnace (Correct)
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
C) High speed steel
D) Mild steel (Correct)

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

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

26. What is the ore of aluminium?

- A) Hematite
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 (Correct)**
B) Malleability
C) Hardness
D) Brittleness

28. What is the area of a rectangle, whose length and

breadth are 10cm and 8cm respectively?

- A) 75 cm²
B) **80 cm² (Correct)**
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
C) 88 mm (Correct)
D) 98 mm

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

- A) 320 mm²
B) **330 mm² (Correct)**
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
B) 37 cm²
C) 47 cm² (Correct)
D) 57 cm²

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

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

33. What is the formula for velocity?

- A) Distance covered/Time (Incorrect)
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
B) Velocity
C) Vector quantity (Incorrect)
D) Scalar quantity

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

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

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

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

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

- A) Body at rest **B) Body at motion (Correct)**
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 **B) 8 m/sec**
C) 10 m/sec D) 12 m/sec

39. What is the formula for acceleration?

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

40. How many newtons for 1 kilogram?

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

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

- A) 726 watts B) 736 watts
C) 746 watts (Correct) 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 **B) 12 x 105 kg meter (Correct)**
C) 12 x 106 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 **B) 73.57 KJ**

- C) 74.57 KJ D) 75.57 KJ (Incorrect)

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 (Incorrect) B) 649 Joules
C) 659 Joules **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 **B) 625 Joules (Correct)**
C) 630 Joules D) 635 Joules

46. What is the square root of 0.017?

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

47. How much is 8% of 40 kg?

- A) 2.2 kg **B) 3.2 kg (Correct)**
C) 4.2 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% **B) Cu 94% (Correct)**
C) Cu 96% D) Cu 98%

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

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

50. What is the square root of 529?

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