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Score: 31/55 (56.36%)

Code: 2498

1. Which machine converts mechanical energy into electrical energy?

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

2. Which is the unit of current?

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

3. Which is the unit of resistance?

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

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

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

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

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

6. Which is very good conductor?

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

7. Which is mineral insulator

- A) Glass      B) Quartz  
**C) Mica (Correct)**      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      B) 7 ohm  
**C) 17 ohms (Correct)**      D) 1/17 ohms

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

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

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 (Correct)**      B) Lenz's law  
C) Newton's law      D) Hooke's law

12. What is the resistance?

$I = 11.5$  Amps  
 $V = 380$  Volts  
 $R = \underline{\hspace{2cm}}$  Ohms

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

13. What is the formula for induced emf?

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

14. What does EMF stand for?

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

15. Which is the example for statically induced emf?

- A) Generator      B) Motor  
**C) Transformer (Correct)**      D) Refrigerator

16. Which is the example for dynamically induced emf?

- A) Motor      **B) Generator (Correct)**  
C) Car      D) Motor bike

17. Which is the unit electrical power?

- A) Volts      B) Ohms  
**C) Watts (Correct)**      D) Ampere

18. What is the current flow in the bulb?

$P = 550$  watts

<br>  
R = 22 Ohms  
<br>  
I = \_\_\_\_Amps

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

19. What is the power required?

<br>  
I = 0.455 Amps  
<br>  
R = 484 Ohms  
<br>  
P = \_\_\_\_Watts

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

20. 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

21. 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 (Correct)**  
D) 405 volts

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

<br>  
W = 1 Kwh  
<br>  
P = 100 Watts  
<br>  
t = \_\_\_\_Hours

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

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

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

24. 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

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

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

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

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

27. What is the density of aluminium?

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

28. Wha 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 (Correct)**  
B) 200 grams  
C) 210 grams  
D) 220 grams

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

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

30. 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>  
B) 6.9 g/cm<sup>3</sup>  
C) 7.2 g/cm<sup>3</sup>  
D) **7.5 g/cm<sup>3</sup> (Correct)**

31. 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> (Correct)**  
B) 73.43 cm<sup>3</sup>  
C) 73.33 cm<sup>3</sup>  
D) 73.23 cm<sup>3</sup>

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

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

33. 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**  
B) 10  
C) 15  
D) 25 (Incorrect)

34. 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>  
B) 13.6 cm<sup>3</sup> (Incorrect)  
C) 10.6 cm<sup>3</sup>  
D) **10.0 cm<sup>3</sup> (Correct)**

35. 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  
C) 2.648 kg  
**B) 2.848 kg (Correct)**  
D) 2.448

36. 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 (Incorrect)  
C) **2.166**  
B) 3.166  
D) 1.166

37. What is the weight force of a car that has a mass of 800 kg? (Take  $g = 9.81 \text{ m/sec}^2$ )

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

38. Which one is non-metal?

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

39. Which metal contains iron as a major content?

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

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

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

41. Which one of the following properties is the mechanical property of metal?

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

42. Which is brittle metal?

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

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

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

44. Which property of material enables the formation of permanent deformation without fracture?

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

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

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

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

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

47. Which alloy is used in electric lamp as filament?

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

48. What metals are contained in brass alloy?

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

49. Which cast iron cannot be welded?

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

50. Which metal cannot be forged?

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

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

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

52. 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)

53. What is the name of the furnace to obtain cast iron?

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

54. 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)**

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

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