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Score: 67/90 (74.44%)

Code: 2987

1. Which machine converts mechanical energy into electrical energy?

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

2. Which is the unit of current?

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

3. Which is the unit of resistance?

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

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

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

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

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

6. Which is very good conductor?

- A) **Copper (Correct)**  
C) Wrought iron  
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 (Correct)**  
B) 7 ohm  
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  
C) 5  
B) **2.4 (Correct)**  
D) 4

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

- A) **Current (Correct)**  
B) Voltage

C) Resistance

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

12. What is the resistance?

&lt;br&gt;

I = 11.5 Amps

&lt;br&gt;

V = 380 Volts

&lt;br&gt;

R = \_\_\_\_\_ Ohms

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

13. What is the current?

&lt;br&gt;

R = 50 Ohms

&lt;br&gt;

220 Volts

&lt;br&gt;

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

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

14. What is the voltage?

&lt;br&gt;

R = 250 Ohms

&lt;br&gt;

I = 0.44 Amps

&lt;br&gt;

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

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

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 (Correct)**  
C) 3 W  
B) 10 W  
D) 1.2 W

17. How much watt second in 1 watt hour?

- A) 1000 watt sec  
B) 2000 watt sec (Incorrect)  
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  
B) 1 kilowatt (Incorrect)  
C) 1 HP  
D) 1 Kilowatt hour

19. Which is equal to electric power?

- A)  $R^2 I$  watts  
B)  $I^2 R$  watts (Correct)  
C) RI  
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 (Incorrect)  
C) 2020 watts  
D) 2030 watts

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  
C) 96.8 ohms (Correct)  
D) 97.8 ohms

22. What is the voltage of the immersion heater?

$P = 500$  watts

$I = 2.27$  Amps

$V = \underline{\hspace{1cm}}$  Volts

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

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

- A) wb/m  
B) m/wb  
C) Hertz  
D) Coloumb (Incorrect)

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 (Incorrect)  
B)  $BL \sin \theta$  volts  
C)  $BLV \sin \theta$  volts  
D)  $B^2 L \sin \theta$  volts

26. What does EMF stands for?

- A) Electronic Magnetic Force  
B) Electro Motive Force (Correct)

C) Electro Magnetic Force  
D) Electromated Force

27. Which is the example for statically induced emf?

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

28. Which is the example for dynamicallly induced Emf?

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

29. Which is the unit electrical power?

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

30. What is the current Flow in the bulb?

$P = 550$  watts

$R = 22$  Ohms

$I = \underline{\hspace{1cm}}$  Amps

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

31. What is the power required?

$I = 0.455$  Amps

$R = 484$  Ohms

$P = \underline{\hspace{1cm}}$  Watts

- A) 98.2 watts  
B) 99.2 watts  
C) 100.2 watts (Correct)  
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  
B) 9.4 watts  
C) 9.6 watts (Correct)  
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 (Correct)  
D) 405 volts

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

$W = 1$  Kwh

$P = 100$  Watts

$t = \underline{\hspace{1cm}}$  Hours

- A) **10 hours (Correct)**  
C) 18 hours
- B) 12 hours  
D) 24 hours
- 
35. Which one is non-metal?
- A) Mercury  
C) Brass
- B) **Graphite (Correct)**  
D) Iron
- 
36. Which metal contains iron as a major content?
- A) Brass metal (Incorrect)  
C) Zinc
- B) Bronze metal  
D) **Ferrous metal**
- 
37. What is the name of the metal which do not contain iron?
- A) Ferrous metals (Incorrect)  
C) Insulating metals
- B) **Non-ferrous metals**  
D) Non-Insulating metals
- 
38. Which one of the following properties is the mechanical properties of metal?
- A) Fusibility  
C) Corrosion
- B) **Ductility (Correct)**  
D) Structure
- 
39. Which is brittle metal?
- A) **Cast iron**  
C) Mild steel (Incorrect)
- B) Steel  
D) Alloy steel
- 
40. Which mechanical property of a metal offers resistance to elastic deformation in a cutting tool?
- A) Ductility  
C) **Hardness**
- B) Malleability  
D) Toughness (Incorrect)
- 
41. Which property of material enables to formation of permanent deformation without fracture?
- A) Elasticity  
C) Ductility
- B) **Plasticity (Correct)**  
D) Brittleness
- 
42. Which property of metal has its power of returning to its original shape after the applied force is released?
- A) Malleability  
C) **Elasticity (Correct)**
- B) Tenacity  
D) Plasticity
- 
43. Which property of a metal possessed by it melts when heat is applied?
- A) Conductivity  
C) **Fusibility (Correct)**
- B) Malleability  
D) Tenacity
- 
44. Which alloy used in electric lamp as filament?
- A) Cobalt  
C) **Tungsten (Correct)**
- B) Vanadium  
D) Silicon
- 
45. What metals contained in brass alloy?

- A) Copper and aluminium  
C) **Copper and zinc (Correct)**
- B) Copper and lead  
D) Copper and tin
- 
46. Which cast iron cannot be welded?
- A) Grey cast iron  
C) Malleable cast iron
- B) **White cast iron (Correct)**  
D) Nodular cast iron
- 
47. Which metal cannot be forged?
- A) Alloy steel  
C) Steel
- B) Mild steel  
D) **Cast iron (Correct)**
- 
48. Which metal is widely used for making casting of machinery parts?
- A) **Grey cast iron (Correct)**  
C) Malleable cast iron
- B) White cast iron  
D) Wrought iron
- 
49. 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)
- 
50. What is the name of furnace to obtained cast iron?
- A) **Cupola (Correct)**  
C) Steel - Rever battery
- B) Mild steel - Blast furnace  
D) Alloy metal - Electric furnace
- 
51. What is the other name of low carbon steel?
- A) Low alloy steel  
C) High speed steel
- B) High alloy steel (Incorrect)  
D) **Mild steel**
- 
52. What is the ore of aluminium?
- A) Hematite  
C) **Bauxite (Correct)**
- B) Mallatite  
D) Lemonite
- 
53. Which property of a metal enables it by which it can be drawn out into wires under tension without rupture?
- A) **Ductility**  
C) Hardness
- B) Malleability (Incorrect)  
D) Brittleness
- 
54. Which among the following is an insulator?
- A) Copper  
C) Silver
- B) Aluminium  
D) **Mica (Correct)**
- 
55. Which rubber is used as insulator for power cables and control wires?
- A) Butyl  
C) **Silicon (Correct)**
- B) Hypalone  
D) Nitrite butadiene
- 
56. Which alloy steel is used to make permanent magnets?

|                                                                                                                                 |                                                     |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| A) Silicon steel                                                                                                                | B) Manganese steel                                  |
| C) Vanadium steel                                                                                                               | <b>D) Cobalt steel (Correct)</b>                    |
| <b>57.</b> Which insulator is used in over head lines?                                                                          |                                                     |
| A) Mica                                                                                                                         | B) Rubber                                           |
| C) P.V.C                                                                                                                        | <b>D) Porcelain (Correct)</b>                       |
| <b>58.</b> Which insulating material is used for making switches?                                                               |                                                     |
| <u>A) Porcelain (Incorrect)</u>                                                                                                 | B) PVC                                              |
| <b>C) Bakelite</b>                                                                                                              | D) Ebonite                                          |
| <b>59.</b> What is the name of the property of an insulation that should brake down or puncture on application of high voltage? |                                                     |
| <b>A) Di-electric strength (Correct)</b>                                                                                        | B) Specific resistance                              |
| C) Mechanical strenth                                                                                                           | D) Non absorption                                   |
| <b>60.</b> Which alloy steel is using for making precious instrument?                                                           |                                                     |
| A) Silicon steel                                                                                                                | B) Manganese steel                                  |
| <b>C) Invar steel (Correct)</b>                                                                                                 | D) Vanadium                                         |
| <b>61.</b> Which steel is used for making files and cold chisel?                                                                |                                                     |
| A) Low carbon steel                                                                                                             | B) Midium carbon steel                              |
| <b>C) High carbon steel (Correct)</b>                                                                                           | D) Stainless steel                                  |
| <b>62.</b> What is the square root of 0.017?                                                                                    |                                                     |
| A) 0.001                                                                                                                        | <b>B) 0.13 (Correct)</b>                            |
| C) 0.00001                                                                                                                      | D) 0.000001                                         |
| <b>63.</b> What is the definition of ratio?                                                                                     |                                                     |
| <b>A) Relation of two quantities of the same kind (Correct)</b>                                                                 | B) Relation of two quantities of the different kind |
| C) Equality between two ratios                                                                                                  | D) Inequality between two ratios                    |
| <b>64.</b> What is the ratio of 4 kg to 800 grams?                                                                              |                                                     |
| <b>A) 05:01</b>                                                                                                                 | B) 04:08                                            |
| C) 08:04                                                                                                                        | <u>D) 02:04 (Incorrect)</u>                         |
| <b>65.</b> What percentage of 80 is 20?                                                                                         |                                                     |
| A) 0.8                                                                                                                          | B) 0.4                                              |
| <b>C) 0.25 (Correct)</b>                                                                                                        | D) 0.2                                              |
| <b>66.</b> How much is 8% of 40 kg?                                                                                             |                                                     |
| A) 2.2 kg                                                                                                                       | <b>B) 3.2 kg (Correct)</b>                          |
| C) 4.2 kg                                                                                                                       | D) 5.2 kg                                           |

|                                                                                                                              |                                  |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <b>67.</b> Convert 52% into fraction?                                                                                        |                                  |
| <u>A) (9/25) (Incorrect)</u>                                                                                                 | B) (11/25)                       |
| <b>C) (13/25)</b>                                                                                                            | D) (17/25)                       |
| <b>68.</b> Convert 0.456 decimal fraction into percentage?                                                                   |                                  |
| A) 0.456                                                                                                                     | B) 0.0456                        |
| <b>C) 45.6 (Correct)</b>                                                                                                     | D) 0.000456                      |
| <b>69.</b> What is the x value for $x^2 + 62 = 126$ ?                                                                        |                                  |
| A) 4                                                                                                                         | B) 6                             |
| <b>C) 8 (Correct)</b>                                                                                                        | D) 10                            |
| <b>70.</b> What is the square root of decimal number 550.37?                                                                 |                                  |
| A) 21.26                                                                                                                     | B) 22.26                         |
| C) 22.46                                                                                                                     | <b>D) 23.46 (Correct)</b>        |
| <b>71.</b> 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                    |
| <b>C) 1.65 metre</b>                                                                                                         | <u>D) 1.75 metre (Incorrect)</u> |
| <b>72.</b> How many days a mechanic takes to assemble 64 machines if he assembles 8 machines in 3 days?                      |                                  |
| A) 20 days                                                                                                                   | B) 22 days                       |
| <b>C) 24 days (Correct)</b>                                                                                                  | D) 26 days                       |
| <b>73.</b> 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                                                                                                                   | B) 140 rpm                       |
| C) 160 rpm                                                                                                                   | <b>D) 180 rpm (Correct)</b>      |
| <b>74.</b> 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>B) Cu 94% (Correct)</b>       |
| C) Cu 96%                                                                                                                    | D) Cu 98%                        |
| <b>75.</b> A motor cycle tyre is sold for Rs 300/- what is the purchase price if 25% profit is added to it.                  |                                  |
| A) Rs 200                                                                                                                    | <u>B) Rs 220 (Incorrect)</u>     |
| <b>C) Rs 240</b>                                                                                                             | D) Rs 260                        |
| <b>76.</b> What is the decimal fraction of conversion of 18.5%?                                                              |                                  |
| <b>A) 0.185 (Correct)</b>                                                                                                    | B) 0.175                         |
| C) 0.165                                                                                                                     | D) 0.195                         |
| <b>77.</b> What are the two classifications of system of units?                                                              |                                  |

A) British and Metric

B) Gravitational and non-gravitational

**C) Fundamental and derived (Correct)**

D) Metric and International

78. What are fundamental units?

A) Length, Mass, Volume

**B) Length, Mass, Time (Correct)**

C) Length, Mass, Area

D) Length, Pressure, Volume

79. What denotes letter M in MKS system?

A) Mile

**B) Meter (Correct)**

C) Millimeter

D) Micron

80. 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

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

A) 12

B) 18

**C) 36 (Correct)**

D) 42

82. What is the HCF of 18, 42, 24?

A) 2

**B) 6 (Correct)**

C) 18

D) 24

83. What is the improper fraction for the given mixed fraction ?  $7 \frac{3}{7}$

**A)  $\frac{52}{7}$  (Correct)**

B)  $\frac{7}{52}$

C)  $\frac{28}{7}$

D)  $\frac{7}{28}$

84. Convert decimal 0.000659 to fraction?

A)  $\frac{659}{1000}$

B)  $\frac{659}{10000}$

C)  $\frac{659}{100000}$

**D)  $\frac{659}{1000000}$  (Correct)**

85. Simplify:  $\frac{3}{4} + \frac{2}{5} - \frac{5}{20}$

A)  $\frac{3}{10}$

**B)  $\frac{9}{10}$  (Correct)**

C)  $\frac{12}{10}$

D)  $\frac{13}{10}$

86. Divide  $\frac{20}{31} \div \frac{15}{62}$

A)  $2\frac{4}{3}$  (Incorrect)

B)  $2\frac{1}{3}$

C)  $2\frac{3}{2}$

**D)  $2\frac{2}{3}$**

87. What is the product of  $0.003 \times 0.5$ ?

A) 0.00015

**B) 0.0015 (Correct)**

C) 0.015

D) 0.15

88. Simplify:  $\frac{17.49 \times 5.2}{6.5}$

A) 13.69

B) 13.79

C) 13.89

**D) 13.99 (Correct)**

89. What is the length of each part is a copper wire of 225 metre long is cut into 900 equal parts?

A) 0.23 metre

**B) 0.25 metre**

C) 0.28 metre

D) 0.29 metre (Incorrect)

90. What is the square root of 529?

A) 12

**B) 23 (Correct)**

C) 33

D) 43