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Score: 35/90 (38.89%)

Code: 4175

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**      B) Volt  
C) Ohm (Incorrect)      D) Watt

3. Which is the unit of resistance?

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

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

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

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

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

6. Which is very good conductor?

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

7. Which is mineral insulator

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

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      D) 4 (Incorrect)

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

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      B) 23 ohms (Incorrect)  
**C) 33 ohms**      D) 43 ohms

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      B) 4.2 Amps  
C) 4.3 Amps (Incorrect)      **D) 4.4 Amps**

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 (Incorrect)      B) 105 Volts  
C) 108 Volts      **D) 110 Volts**

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

- A)  $I = 1/V$  (Incorrect)      B)  $I = R$   
**C)  $I = V/R$**       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**      B) 10 W (Incorrect)  
C) 3 W      D) 1.2 W

17. How much watt second in 1 watt hour?

- A) 1000 watt sec      B) 2000 watt sec  
**C) 3600 watt sec (Correct)**      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 (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  
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  
**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

$V =$  \_\_\_\_\_ 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 (Incorrect)  
C) Lenz's law      **D) Faraday's law**

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 (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**  
C) Car (Incorrect)      D) Motor bike

29. Which is the unit electrical power?

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

30. What is the current Flow in the bulb?

$P = 550$  watts

$R = 22$  Ohms

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

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

31. What is the power required?

$I = 0.455$  Amps

$R = 484$  Ohms

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

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

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 (Incorrect)      B) 395 volts  
**C) 400 volts**      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

$t =$  \_\_\_\_\_ 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**  
D) Iron (Incorrect)
- 
36. Which metal contains iron as a major content?
- A) Brass metal  
C) Zinc
- B) Bronze metal (Incorrect)  
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
- B) Steel (Incorrect)  
D) Alloy steel
- 
40. Which mechanical property of a metal offers resistance to elastic deformation in a cutting tool?
- A) Ductility  
C) **Hardness (Correct)**
- B) Malleability  
D) Toughness
- 
41. Which property of material enables to formation of permanent deformation without fracture?
- A) Elasticity  
C) Ductility (Incorrect)
- B) **Plasticity**  
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**
- B) Tenacity  
D) Plasticity (Incorrect)
- 
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 (Incorrect)  
C) **Tungsten**
- 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
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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 (Incorrect)  
C) **Blast furnace**
- B) Electric furnace  
D) Cupola
- 
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
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51. 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)**
- 
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 (Correct)**  
C) Hardness
- B) Malleability  
D) Brittleness
- 
54. Which among the following is an insulator?
- A) Copper (Incorrect)  
C) Silver
- B) Aluminium  
D) **Mica**
- 
55. Which rubber is used as insulator for power cables and control wires?
- A) Butyl (Incorrect)  
C) **Silicon**
- B) Hypalone  
D) Nitrite butadiene

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

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

57. Which insulator is used in over head lines?

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

58. Which insulating material is used for making switches?

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

59. 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**            B) Specific resistance  
C) Mechanical strenth              D) Non absorption (Incorrect)

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

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

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

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

62. What is the square root of 0.017?

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

63. What is the definition of ratio?

- A) Relation of two quantities of the same kind**    B) Relation of two quantities of the different kind  
C) Equality between two ratios                      D) Inequality between two ratios (Incorrect)

64. What is the ratio of 4 kg to 800 grams?

- A) 05:01**                                B) 04:08  
C) 08:04                                D) 02:04 (Incorrect)

65. What percentage of 80 is 20?

- A) 0.8                                    B) 0.4  
**C) 0.25 (Correct)**                    D) 0.2

66. How much is 8% of 40 kg?

- A) 2.2 kg                                **B) 3.2 kg**

- C) 4.2 kg (Incorrect)                D) 5.2 kg

67. Convert 52% into fraction?

- A) (9/25)                                B) (11/25)  
**C) (13/25) (Correct)**                D) (17/25)

68. Convert 0.456 decimal fraction into percentage?

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

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

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

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

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

71. 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

72. How many days a mechanic takes to assemble 64 machines if he assembles 8 machines in 3 days?

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

73. 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                                **D) 180 rpm (Correct)**

74. 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%

75. 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  
**C) Rs 240**                                D) Rs 260 (Incorrect)

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

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

77. 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**

C) Length, Mass, Area (Incorrect)

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**

C) 24.5 mm (Incorrect)

D) 2.45 mm

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

A) 12

B) 18

**C) 36**

D) 42 (Incorrect)

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

A) 2

**B) 6**

C) 18 (Incorrect)

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)  $\frac{659}{1000}$  (Incorrect)

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

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

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

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

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

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

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

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

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

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

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

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

**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 (Incorrect)

B) 13.79

C) 13.89

**D) 13.99**

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 (Correct)**

C) 0.28 metre

D) 0.29 metre

90. What is the square root of 529?

A) 12 (Incorrect)

**B) 23**

C) 33

D) 43