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Score: 45/90 (50.00%)

Code: 4082

1. Which machine converts mechanical energy into electrical energy?

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

2. Which is the unit of current?

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

3. Which is the unit of resistance?

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

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

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

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

- A) Current
C) Resistance (Correct)
B) Voltage
D) EMF

6. Which is very good conductor?

- A) Copper**
C) Wrought iron
B) Cast iron (Incorrect)
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
B) 7 ohm
D) 1/17 ohms (Incorrect)

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

- A) 10 (Incorrect)
C) 5
B) 2.4
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?

I = 11.5 Amps

V = 380 Volts

R = _____ Ohms

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

13. What is the current?

R = 50 Ohms

220 Volts

I = _____ Amps

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

14. What is the voltage?

R = 250 Ohms

I = 0.44 Amps

V = _____ Volts

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

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 (Incorrect) B) 2000 watt sec
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 (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
C) RI D) $IR A$ (Incorrect)

20. How much power does it consumes if an electric heater draws a current of 10 amps at 200 volts?

- A) 2000 watts (Correct) B) 2010 watts
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 D) 97.8 ohms (Incorrect)

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 (Incorrect) D) Coloumb

24. Which law states about electromagnetic induction?

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

25. What is the formual for induced emf?

- A) $B > 2 L$ sinq volts B) BL sinq volts (Incorrect)
C) BLV sinq volts D) $B > 2 V$ sinq 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 (Incorrect)
C) Transformer 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

$I =$ ____ 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 (Incorrect) B) 99.2 watts
C) 100.2 watts 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 D) 9.8 watts (Incorrect)

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 (Incorrect)
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 B) 12 hours
C) 18 hours D) 24 hours (Incorrect)

35. Which one is non-metal?

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

36. Which metal contains iron as a major content?

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

37. What is the name of the metal which do not contain iron?

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

38. Which one of the following properties is the mechanical properties of metal?

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

39. Which is brittle metal?

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

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

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

41. Which property of material enables to formation of permanent deformation without fracture?

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

42. 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

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

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

44. Which alloy used in electric lamp as filament?

- A) Cobalt B) Vanadium (Incorrect)
C) Tungsten D) Silicon

45. What metals contained in brass alloy?

- A) Copper and aluminium B) Copper and lead (Incorrect)

C) Copper and zinc

D) Copper and tin

46. Which cast iron cannot be welded?

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

47. Which metal cannot be forged?

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

48. 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

49. 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

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

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

51. 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)**

52. What is the ore of aluminium?

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

54. Which among the following is an insulator?

- A) Copper B) Aluminium
C) Silver **D) Mica (Correct)**

55. Which rubber is used as insulator for power cables and control wires?

- A) Butyl B) Hypalone (Incorrect)
C) Silicon D) Nitrite butadiene

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

- A) Silicon steel B) Manganese steel

C) Fundamental and derived

D) Metric and International (Incorrect)

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

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) $\frac{52}{7}$

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

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

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

84. Convert decimal 0.000659 to fraction?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

87. What is the product of 0.003×0.5 ?

A) 0.00015

B) 0.0015

C) 0.015 (Incorrect)

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 (Correct)

C) 0.28 metre

D) 0.29 metre

90. What is the square root of 529?

A) 12

B) 23 (Correct)

C) 33

D) 43