



18. What is the specific gravity of the solid, if density of the solid is  $19.5 \text{ g/cm}^3$ ?

- A) 19.5
- B) 8
- C) 18.5
- D) 19

19. What is the resistance of an electric iron if the rating of electric iron is 220 V and 500 watts?

- A) 97.8 ohms
- B) 96.8 ohms
- C) 95.8 ohms
- D) 94.8 ohms

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

- A)  $I = R$
- B)  $I = 1/V$
- C)  $I = V/R$
- D)  $I = R/V$

21. Convert decimal 0.000659 to fraction?

- A)  $(659/10000)$
- B)  $(659/1000)$
- C)  $(659/100000)$
- D)  $(659/1000000)$

22. Which is the example for dynamically induced Emf?

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

23. Which law states about electromagnetic induction?

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

24. What does EMF stands for?

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

25. What is the resistance?  $I = 11.5 \text{ Amps}$   $V = 380 \text{ Volts}$   $R = \text{_____Ohms}$

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

26. Which is the unit of current?

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

27. What is the volume of mercury in  $\text{cm}^3$ , if the mass (m) of mercury is 136 grams (g) and density (r) of mercury is  $13.6 \text{ g/cm}^3$ ?

- A)  $13.6 \text{ cm}^3$
- B)  $10.6 \text{ cm}^3$
- C)  $136 \text{ cm}^3$
- D)  $10.0 \text{ cm}^3$

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

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

29. How much is 8% of 40 kg?

- A) 4.2 kg
- B) 5.2 kg
- C) 3.2 kg
- D) 2.2 kg

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

- A) 0.195
- B) 0.175
- C) 0.185
- D) 0.165

31. What is the voltage of the immersion heater?  $P = 500 \text{ watts}$   $I = 2.27 \text{ Amps}$   $V = \text{_____Volts}$

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

32. What is the square root of 529?

- A) 23
- B) 33
- C) 43
- D) 12

33. How many hours will take for a 100 watts bulb to consume 1 kwh energy?  $W = 1 \text{ Kwh}$   $P = 100 \text{ Watts}$   $t = \text{_____Hours}$

- A) 24 hours
- B) 18 hours
- C) 12 hours
- D) 10 hours

34. Which is the example for statically induced emf?

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

35. How much watt second in 1 watt hour?

- A) 4000 watt sec
- B) 2000 watt sec
- C) 1000 watt sec
- D) 3600 watt sec

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

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

37. What is the power required?  $I = 0.455 \text{ Amps}$   $R = 484 \text{ Ohms}$   $P = \text{_____Watts}$

- A) 99.2 watts
- B) 101.2 watts
- C) 100.2 watts
- D) 98.2 watts

38. Which is mineral insulator

- A) Quartz
- B) Glass
- C) Porcelain
- D) Mica

39. Simplify:  $(17.49 \times 5.2) / (6.5)$

- A) 13.79
- B) 13.99
- C) 13.69
- D) 13.89

40. What is the specific gravity of the metal, if the piece of metal weighs 150 grams in air and 125 grams in water?

- A) 15  
B) 10  
C) 6  
D) 25

41. What is the percentage of copper if the casting weight of copper 42.3 kg and tin weight 2.7 kg?

- A) Cu 96%  
B) Cu 92%  
C) Cu 98%  
D) Cu 94%

42. 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) 405 volts  
D) 400 volts

43. What percentage of 80 is 20?

- A) 0.2  
B) 0.25  
C) 0.4  
D) 0.8

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

- A) 2010 watts  
B) 2020 watts  
C) 2000 watts  
D) 2030 watts

45. What is the density ( $\rho$ ) in  $\text{g/cm}^3$  of an iron cube, if it weighs (W) 4.8 kg and volume (V) is  $640 \text{ cm}^3$ ?

- A)  $7.2 \text{ g/cm}^3$   
B)  $6.6 \text{ g/cm}^3$   
C)  $7.5 \text{ g/cm}^3$   
D)  $6.9 \text{ g/cm}^3$

46. How many millimetres are there in 1 inch?

- A) 24.5 mm  
B) 25.4 mm  
C) 2.54 mm  
D) 2.45 mm

47. What is the voltage?  $R = 250 \text{ Ohms}$   $I = 0.44 \text{ Amps}$   $V = \text{___ Volts}$

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

48. Simplify:  $(\frac{3}{4}) + (\frac{2}{5}) - (\frac{5}{20})$

- A)  $(\frac{3}{10})$   
B)  $(\frac{9}{10})$   
C)  $(\frac{13}{10})$   
D)  $(\frac{12}{10})$

49. What is the length  $L_2$ , if total length (L) is 2.75 metre and  $L_1:L_2 = 2:3$ ?

- A) 1.1 metre  
B) 1.65 metre  
C) 1.75 metre  
D) 1.25 metre

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

- A) Volume  
B) Weight  
C) Density  
D) Mass

51. What is the power if an emf of one volt causes a current flow of 1 ampere?

- A) 1 kilowatt  
B) 1 watt  
C) 1 HP  
D) 1 Kilowatt hour

52. What are the two classifications of system of units?

- A) Metric and International  
B) Gravitational and non-gravitational  
C) Fundamental and derived  
D) British and Metric

53. Which machine converts mechanical energy into electrical energy?

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

54. 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 260  
C) Rs 220  
D) Rs 240

55. What is the mass in gram, if a force of 15 dynes acting on a mass  $m$  producing an acceleration of  $2.5 \text{ cm/sec}^2$ ?

- A) 7 grams  
B) 6 grams  
C) 9 grams  
D) 8 grams

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

- A) 4  
B) 5  
C) 2.4  
D) 10

57. Which is the unit of resistance?

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

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

- A) 0.29 metre  
B) 0.28 metre  
C) 0.23 metre  
D) 0.25 metre

59. What is the rated power if an adjustable resistor bears the following label  $1.5 \text{ k ohms} / 0.08\text{A}$ ?

- A) 9.6 watts  
B) 9.2 watts  
C) 9.8 watts  
D) 9.4 watts

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

- A) 26 days  
C) 20 days

- B) 22 days  
D) 24 days

C) Mass

D) Density

61. 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) 180 rpm  
C) 120 rpm

- B) 160 rpm  
D) 140 rpm

62. Which is equal to electric power?

- A)  $I^2 R$  watts  
C)  $R^2 I$  watts

- B)  $RI$   
D)  $IRA$

63. What are fundamental units?

- A) Length, Mass, Time  
C) Length, Pressure, Volume

- B) Length, Mass, Area  
D) Length, Mass, Volume

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

- A)  $\frac{52}{7}$   
C)  $\frac{7}{28}$

- B)  $\frac{7}{52}$   
D)  $\frac{28}{7}$

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

- A) Voltage  
C) Power

- B) Current  
D) Resistance

66. What is the volume (V) of mercury in  $\text{cm}^3$ , if mass (m) of mercury is 1 kg and density (r) is  $13.6 \text{ g/cm}^3$ ?

- A)  $73.33 \text{ cm}^3$   
C)  $73.43 \text{ cm}^3$

- B)  $73.23 \text{ cm}^3$   
D)  $73.53 \text{ cm}^3$

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

- A) 36  
C) 42

- B) 18  
D) 12

68. What is the density of aluminium?

- A)  $5.7 \text{ g/cm}^3$   
C)  $4.7 \text{ g/cm}^3$

- B)  $2.7 \text{ g/cm}^3$   
D)  $3.7 \text{ g/cm}^3$

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

- A) Volume

- B) Weight

70. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?

- A) 7 ohm  
C) 11 ohms

- B)  $\frac{1}{17}$  ohms  
D) 17 ohms

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

- A) 08:04  
C) 02:04

- B) 05:01  
D) 04:08

72. What denotes letter M in MKS system?

- A) Micron  
C) Mile

- B) Meter  
D) Millimeter

73. What is the current Flow in the bulb?  $P = 550$  watts  
 $R = 22$  Ohms  $I =$  \_\_\_\_\_ Amps

- A) 3 Amps  
C) 2 Amps

- B) 5 Amps  
D) 4 Amps

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

- A) Hertz  
C)  $\text{wb/m}$

- B) Coloumb  
D)  $\text{m/wb}$

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

- A) 22.46  
C) 22.26

- B) 21.26  
D) 23.46

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

- A) EMF  
C) Current

- B) Resistance  
D) Voltage

77. What is the mass if the density of a body is  $7.6 \text{ g/cm}^3$  and its volume is  $25 \text{ cm}^3$ ?

- A) 200 grams  
C) 220 grams

- B) 210 grams  
D) 190 grams

78. Convert 0.456 decimal fraction into percentage?

- A) 45.6  
C) 0.000456

- B) 0.456  
D) 0.0456