

- A) Tenacity B) Elasticity
C) Malleability D) Plasticity

Answer: B) Elasticity

17. How many millimetres are there in 1 inch?

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

Answer: D) 25.4 mm

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

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

Answer: A) $(\frac{9}{10})$

19. What is the x value for $x^{2} + 62 = 126$?

- A) 10 B) 4
C) 6 D) 8

Answer: D) 8

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

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

Answer: B) Hardness

21. What denotes letter M in MKS system?

- A) Mile B) Millimeter
C) Micron D) Meter

Answer: D) Meter

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

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

Answer: B) Cupola

23. Which is mineral insulator

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

Answer: A) Mica

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

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

Answer: D) Current

25. 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) 180 rpm

- C) 140 rpm D) 160 rpm

Answer: B) 180 rpm

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

- A) 11 ohms B) $\frac{1}{17}$ ohms
C) 7 ohm D) 17 ohms

Answer: D) 17 ohms

27. What does EMF stands for?

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

Answer: B) Electro Motive Force

28. 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

Answer: B) 2.4

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

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

Answer: A) 0.25 metre

30. Which insulating material is used for making switches?

- A) PVC B) Porcelain
C) Ebonite D) Bakelite

Answer: D) Bakelite

31. What are fundamental units?

- A) Length, Mass, Area B) Length, Mass, Volume
C) Length, Mass, Time D) Length, Pressure, Volume

Answer: C) Length, Mass, Time

32. 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 94% D) Cu 98%

Answer: C) Cu 94%

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

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

Answer: B) 0.185

34. A motor cycle tyre is sold for Rs 300/- what is the purchase price if 25% profit is added to it.

- A) Rs 220 B) Rs 240

C) Rs 200

D) Rs 260

Answer: B) Rs 240

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

A) 2010 watts

B) 2000 watts

C) 2020 watts

D) 2030 watts

Answer: B) 2000 watts

36. Which is the example for dynamically induced Emf?

A) Generator

B) Motor bike

C) Motor

D) Car

Answer: A) Generator

37. Which metal contains iron as a major content?

A) Bronze metal

B) Ferrous metal

C) Brass metal

D) Zinc

Answer: B) Ferrous metal

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

A) 1 Kilowatt hour

B) 1 HP

C) 1 watt

D) 1 kilowatt

Answer: C) 1 watt

39. What is the name of the property of an insulation that should brake down or puncture on application of high voltage?

A) Non absorption

B) Mechanical strenth

C) Di-electric strength

D) Specific resistance

Answer: C) Di-electric strength

40. What is the power required? $I = 0.455$ Amps $R = 484$ Ohms $P =$ ____Watts

A) 101.2 watts

B) 98.2 watts

C) 99.2 watts

D) 100.2 watts

Answer: D) 100.2 watts

41. Which one is non-metal?

A) Graphite

B) Iron

C) Mercury

D) Brass

Answer: A) Graphite

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

A) Silicon

B) Hypalone

C) Nitrite butadiene

D) Butyl

Answer: A) Silicon

43. Which alloy used in electric lamp as filament?

A) Vanadium

B) Silicon

C) Cobalt

D) Tungsten

Answer: D) Tungsten

44. Which law states about electromagnetic induction?

A) Ohm's law

B) Lenz's law

C) Faraday's law

D) Hooke's law

Answer: C) Faraday's law

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

A) Voltage

B) Resistance

C) Current

D) Power

Answer: C) Current

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

A) 26 days

B) 24 days

C) 22 days

D) 20 days

Answer: B) 24 days

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

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

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

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

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

Answer: C) $\frac{52}{7}$

48. Which furnace is used to get pig iron from iron ore?

A) Mild steel - Rever battery

B) Blast furnace

C) Electric furnace

D) Cupola

Answer: B) Blast furnace

49. What is the current Flow in the bulb? $P = 550$ watts
 $R = 22$ Ohms $I =$ ____Amps

A) 2 Amps

B) 4 Amps

C) 5 Amps

D) 3 Amps

Answer: C) 5 Amps

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

A) Metric and International

B) Gravitational and non-gravitational

C) British and Metric

D) Fundamental and derived

Answer: D) Fundamental and derived

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

A) 9.4 watts

B) 9.2 watts

C) 9.8 watts

D) 9.6 watts

Answer: D) 9.6 watts

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

A) Ferrous metals

B) Non-Insulating metals

- C) Non-ferrous metals D) Insulating metals

Answer: C) Non-ferrous metals

53. Which is the unit electrical power?

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

Answer: B) Watts

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

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

Answer: A) wb/m

55. What is the product of 0.003×0.5 ?

- A) 0.0015 B) 0.015
C) 0.15 D) 0.00015

Answer: A) 0.0015

56. Divide $(20/31)/(15/62)$

- A) $2(4/3)$ B) $2(1/3)$
C) $2(2/3)$ D) $2(3/2)$

Answer: C) $2(2/3)$

57. Which is the unit of resistance?

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

Answer: A) Ohm

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

- A) 36 B) 12
C) 18 D) 42

Answer: A) 36

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

- A) Plasticity B) Ductility
C) Elasticity D) Brittleness

Answer: A) Plasticity

60. Convert 52% into fraction?

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

Answer: C) $(13/25)$

61. 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) 12 hours B) 24 hours
C) 18 hours D) 10 hours

Answer: D) 10 hours

62. How much watt second in 1 watt hour?

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

Answer: C) 3600 watt sec

63. How much is 8% of 40 kg?

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

Answer: C) 3.2 kg

64. What is the ore of aluminium?

- A) Hematite B) Mallatite
C) Lemonite D) Bauxite

Answer: D) Bauxite

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

- A) Invar steel B) Vanadium
C) Silicon steel D) Manganese steel

Answer: A) Invar steel

66. What metals contained in brass alloy?

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

Answer: B) Copper and zinc

67. Which machine converts mechanical energy into electrical energy?

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

Answer: D) Generator

68. What is the voltage? $R = 250 \text{ Ohms}$ $I = 0.44 \text{ Amps}$ $V = \text{___Volts}$

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

Answer: D) 110 Volts

69. Which metal cannot be forged?

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

Answer: B) Cast iron

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

- A) Ductility B) Fusibility
C) Structure D) Corrosion

Answer: A) Ductility

71. Which property of a metal enables it by which it can be drawn out into wires under tension without rupture?

- A) Hardness
C) Brittleness
- B) Ductility
D) Malleability

Answer: B) Ductility

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

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

Answer: C) 05:01

73. What is the resistance? $I = 11.5$ Amps $V = 380$ Volts $R = \underline{\hspace{2cm}}$ Ohms

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

Answer: B) 33 ohms

74. Which is very good conductor?

- A) Wrought iron
C) Cast iron
- B) Steel
D) Copper

Answer: D) Copper

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

- A) Low carbon steel
C) Medium carbon steel
- B) Stainless steel
D) High carbon steel

Answer: D) High carbon steel

76. Convert decimal 0.000659 to fraction?

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

Answer: A) $(659/1000000)$

77. What is the current? $R = 50$ Ohms $V = 220$ Volts $I = \underline{\hspace{2cm}}$ Amps

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

Answer: A) 4.4 Amps

78. Which is the example for statically induced emf?

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

Answer: D) Transformer

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

- A) Silicon steel
C) Vanadium steel
- B) Cobalt steel
D) Manganese steel

Answer: B) Cobalt steel

80. What percentage of 80 is 20?

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

Answer: D) 0.25

81. Which cast iron cannot be welded?

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

Answer: C) White cast iron

82. Convert 0.456 decimal fraction into percentage?

- A) 45.6
C) 0.456
- B) 0.000456
D) 0.0456

Answer: A) 45.6

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

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

Answer: B) 13.99

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

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

Answer: B) $I = V/R$

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

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

Answer: B) Resistance

86. What is the square root of 0.017?

- A) 0.13
C) 0.001
- B) 0.000001
D) 0.00001

Answer: A) 0.13

87. What is the definition of ratio?

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

Answer: A) Relation of two quantities of the same kind

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

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

Answer: D) Grey cast iron

89. Which is brittle metal?

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

Answer: B) Cast iron

90. Which among the following is an insulator?

A) Aluminium
C) Silver

B) Copper
D) Mica

Answer: D) Mica
