

Duration: 30 Mins

Total Marks: 166

Q.ID: ITISKILL5722PV

1. Which metal cannot be forged?

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

Answer: D) Cast iron

2. Convert decimal 0.000659 to fraction?

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

Answer: B) (659/1000000)

3. What is the current? $R = 50 \text{ Ohms}$ $V = 220 \text{ Volts}$
 $I = \text{_____ Amps}$

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

Answer: C) 4.4 Amps

4. What is the current Flow in the bulb? $P = 550 \text{ watts}$
 $R = 22 \text{ Ohms}$ $I = \text{_____ Amps}$

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

Answer: B) 5 Amps

5. What is the resistance? $I = 11.5 \text{ Amps}$ $V = 380 \text{ Volts}$
 $R = \text{_____ Ohms}$

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

Answer: B) 33 ohms

6. What is the length L2, if total length (L) is 2.75 metre and $L1:L2 = 2:3$?

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

Answer: B) 1.65 metre

7. Which is the unit of resistance?

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

Answer: A) Ohm

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

- A) "7/28"
B) "7/52"

C) "28/7"
D) (52/7)

Answer: D) (52/7)

9. What is the volume of sphere of radius 7 cm?

- A) 1346 cm^3
B) 1463 cm^3
C) 1436 cm^3
D) 1636 cm^3

Answer: C) 1436 cm^3

10. How many watts for 1 horse power in metric system?

- A) 745.5 watts
B) 725.5 watts
C) 735.5 watts
D) 755.5 watts

Answer: C) 735.5 watts

11. How much work done in one hour, if a pump can raise 100 liters of water through a height of 200 meters in one minutes?

- A) $12 \times 10^6 \text{ kg meter}$
B) $12 \times 10^7 \text{ kg meter}$
C) $12 \times 10^5 \text{ kg meter}$
D) $12 \times 10^4 \text{ kg meter}$

Answer: C) $12 \times 10^5 \text{ kg meter}$

12. Find the curved surface area of a cylinder 10 cm dia and 20 cm height?

- A) 628 cm^2
B) 638 cm^2
C) 620 cm^2
D) 630 cm^2

Answer: A) 628 cm^2

13. What is the diagonal of a square plate whose side is 28 cm?

- A) 39.59 cm
B) 39.49 cm
C) 39.29 cm
D) 39.39 cm

Answer: A) 39.59 cm

14. What is the formula for kinetic energy?

- A) $\frac{2}{3} mv^2$ joule
B) $\frac{1}{2} mv$ joule
C) $\frac{1}{2} mv^2$ joule
D) $\frac{2}{3} mv$ joule

Answer: C) $\frac{1}{2} mv^2$ joule

15. 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

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

- A) Butyl
C) Hypalane
B) Nitrite butadiene
D) Silicon

Answer: D) Silicon

17. What is the filament resistance if a 6 volt bulb draws a current of 0.5 Amps?

- A) 10 W
C) 3 W
B) 12 W
D) 1.2 W

Answer: B) 12 W

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

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

Answer: C) Fundamental and derived

19. What is the carbon percentage in medium carbon steel?

- A) 0.5% to 1.5%
C) 0.05% to 0.15%
B) 0.15% to 0.25%
D) 0.25% to 0.5%

Answer: D) 0.25% to 0.5%

20. Find the total surface area of cube whose side is 25 cm.

- A) 3750 cm^2
C) 3740 cm^2
B) 3745 cm^2
D) 3755 cm^2

Answer: A) 3750 cm^2

21. What is the capacity of a body to do work is called?

- A) Acceleration
C) Power
B) Force
D) Energy

Answer: D) Energy

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

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

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

23. What is the volume (V) of mercury in cm^3 , if mass (m) of mercury is 1 kg and density (r) is 13.6 g/cm^3 ?

- A) 73.23 cm^3
C) 73.33 cm^3
B) 73.43 cm^3
D) 73.53 cm^3

Answer: D) 73.53 cm^3

24. What is called if a body posses only magnitude or size alone?

- A) Vector quantity
C) Speed
B) Scalar quantity
D) Velocity

Answer: B) Scalar quantity

25. What is the density (r) in g/cm^3 of an iron cube, if it

weighs (W) 4.8 kg and volume (V) is 640 cm^3 ?

- A) 6.6 g/cm^3
C) 7.5 g/cm^3
B) 6.9 g/cm^3
D) 7.2 g/cm^3

Answer: C) 7.5 g/cm^3

26. What is the primeter of scalene. Triangle having sides of 40mm, 20mm and 28mm?

- A) 78 mm
C) 88 mm
B) 68 mm
D) 98 mm

Answer: C) 88 mm

27. What does EMF stands for?

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

Answer: D) Electro Motive Force

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

- A) 17 ohms
C) 11 ohms
B) $1/17$ ohms
D) 7 ohm

Answer: A) 17 ohms

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

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

Answer: A) Weight

30. What is the formula for finding volume of a hollow cylinder having outer radius 'R' inner radius 'r' and height 'h'?

- A) $\frac{2}{3} \pi (R^2 - r^2) h$
C) $\frac{\pi}{3} (R^2 - r^2) h$
B) $\pi (R^2 - r^2) h$
D) $\frac{4}{3} \pi (R^2 - r^2) h$

Answer: B) $\pi (R^2 - r^2) h$

31. What is the mass in gram, if a force of 15 dyres acting on a mass m producing an acceleration of 2.5 cm/sec^2 ?

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

Answer: B) 6 grams

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

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

Answer: D) 2000 watts

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

- A) 23.46
B) 22.46

C) 21.26

D) 22.26

Answer: A) 23.46

34. What is called if a body possesses both magnitude and direction of velocity?

A) Vector quantity

B) Speed

C) Velocity

D) Scalar quantity

Answer: A) Vector quantity

35. Which is equal to electric power?

A) $R^2 I$ watts

B) IR^2

C) RI

D) $I^2 R$ watts

Answer: D) $I^2 R$ watts

36. Which among the following is an insulator?

A) Silver

B) Aluminium

C) Copper

D) Mica

Answer: D) Mica

37. What maximum height a stone will reach if it is thrown upwards with a velocity of 20m/sec? ($g = 10\text{m/sec}^2$)

A) 30 m

B) 20 m

C) 10 m

D) 40 m

Answer: B) 20 m

38. What is the carbon percentage in low carbon steel?

A) 0.15% to 0.25%

B) 0.50% to 1.50%

C) 0.02% to 0.03%

D) 0.25% to 0.50%

Answer: A) 0.15% to 0.25%

39. What is the name of furnace to obtain cast iron?

A) Cupola

B) Mild steel - Blast furnace

C) Alloy metal - Electric furnace

D) Steel - Rever battery

Answer: A) Cupola

40. What is the work done in unit time?

A) Energy

B) Force

C) Acceleration

D) Power

Answer: D) Power

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

A) 101.2 watts

B) 100.2 watts

C) 98.2 watts

D) 99.2 watts

Answer: B) 100.2 watts

42. Which is mineral insulator

A) Quartz

B) Mica

C) Glass

D) Porcelain

Answer: B) Mica

43. What is the ore of aluminium?

A) Hematite

B) Lemonite

C) Magnetite

D) Bauxite

Answer: D) Bauxite

44. What is the product of 0.003×0.5 ?

A) 0.015

B) 0.00015

C) 0.15

D) 0.0015

Answer: D) 0.0015

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

A) 10

B) 6

C) 15

D) 25

Answer: B) 6

46. What is the definition of ratio?

A) Inequality between two ratios

B) Equality between two ratios

C) Relation of two quantities of the different kind

D) Relation of two quantities of the same kind

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

47. What is the square root of 0.017?

A) 0.001

B) 0.000001

C) 0.13

D) 0.00001

Answer: C) 0.13

48. Which is very good conductor?

A) Wrought iron

B) Cast iron

C) Steel

D) Copper

Answer: D) Copper

49. What is the area of a square whose side is 18 cm?

A) 26 cm^2

B) 36 cm^2

C) 72 cm^2

D) 324 cm^2

Answer: D) 324 cm^2

50. Which insulator is used in overhead lines?

A) Mica

B) P.V.C

C) Porcelain

D) Rubber

Answer: C) Porcelain

51. What is the carbon percentage in high carbon steel?

A) 0.50% to 1.50%

B) 0.15% to 0.25%

C) 0.02% to 0.03%

D) 0.25% to 0.50%

Answer: A) 0.50% to 1.50%

52. What is the unit of speed?

- A) Metre/hour B) Metre/minute
C) Metre/second² D) Metre/second

Answer: D) Metre/second

53. What is the formula for potential energy?

- A) $\frac{1}{2} mgh$ joule B) $\frac{2}{3} mgh$ joule
C) mgh^2 joule D) mgh joule

Answer: D) mgh joule

54. What is the voltage of the immersion heater? $P = 500$ watts $I = 2.27$ Amps $V = \underline{\hspace{2cm}}$ Volts

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

Answer: A) 220.3 volts

55. What is called the ratio between the density of a substance and the density of water at 4 Degree Centigrade?

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

Answer: A) Specific gravity

56. What is the density of aluminium?

- A) 2.7 g/cm^3 B) 4.7 g/cm^3
C) 3.7 g/cm^3 D) 5.7 g/cm^3

Answer: A) 2.7 g/cm^3

57. What is the area of an equilateral triangle of side 450 mm?

- A) 856.82 cm^2 B) 876.82 cm^2
C) 886.82 cm^2 D) 866.82 cm^2

Answer: B) 876.82 cm^2

58. What is the formula for acceleration?

- A) Metre/minute B) Metre/hour
C) Metre/second D) Metre/second²

Answer: D) Metre/second²

59. What is called mass per unit volume of a substance?

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

Answer: D) Density

60. What is the mass if the density of a body is 7.6 g/cm^3 and its volume is 25 cm^3 ?

- A) 200 grams B) 190 grams
C) 210 grams D) 220 grams

Answer: B) 190 grams

61. What is the formula for velocity?

- A) Displacement/Time B) Change in velocity/Time
C) Distance covered/Time D) Change of momentum/Time

Answer: A) Displacement/Time

62. How many newtons for 1 kilogram?

- A) 981 Newtons B) 9.81 Newtons
C) 98.1 Newtons D) 0.981 Newtons

Answer: B) 9.81 Newtons

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

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

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

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

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

Answer: A) Hardness

65. Which is the unit of current?

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

Answer: B) Ampere

66. What is the volume of the cylinder whose radius is 7 cm and height 12 cm?

- A) 1842 c.c B) 1844 c.c
C) 1847 c.c D) 1846 c.c

Answer: C) 1847 c.c

67. Which machine converts mechanical energy into electrical energy?

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

Answer: C) Generator

68. What is the area of a circle of diameter 50 cm?

- A) 1942.5 cm^2 B) 1952.5 cm^2
C) 1932.5 cm^2 D) 1962.5 cm^2

Answer: D) 1962.5 cm^2

69. What is the area of an ellipse if the major and minor axes are 5 cm and 3 cm respectively?

- A) 27 cm^2 B) 37 cm^2
C) 57 cm^2 D) 47 cm^2

Answer: D) 47 cm^2

70. What is the other name of low carbon steel?

A) High speed steel

B) Mild steel

C) High alloy steel

D) Low alloy steel

Answer: B) Mild steel

71. How many millimetres are there in 1 inch?

A) 24.5 mm

B) 2.45 mm

C) 2.54 mm

D) 25.4 mm

Answer: D) 25.4 mm

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

A) Insulating metals

B) Non-ferrous metals

C) Ferrous metals

D) Non-Insulating metals

Answer: B) Non-ferrous metals

73. What is called if a force of 1Newton acts on a body and moves it through a distance of 1 metre?

A) 10 Joules

B) 1 dyne

C) 10 dynes

D) 1 Joule

Answer: D) 1 Joule

74. Which alloy used in electric lamp as filament?

A) Tungsten

B) Silicon

C) Cobalt

D) Vanadium

Answer: A) Tungsten

75. How many watts for 1 horse power in British system?

A) 746 watts

B) 756 watts

C) 736 watts

D) 726 watts

Answer: A) 746 watts

76. What is the formual for induced emf?

A) $BLV \sin \theta$ volts

B) $B^2 \sin \theta$ volts

C) $BL \sin \theta$ volts

D) $B^2 \sin \theta L$ volts

Answer: A) $BLV \sin \theta$ volts

77. What is the block weighs (W) in kg, if volume (V) is 320 cm³ and density 8.9 g/cm³?

A) 2.648 kg

B) 2.948 kg

C) 2.848 kg

D) 2.448 kg

Answer: C) 2.848 kg

78. What is the formula for total surface area of a cylinder?

A) $\pi r h$

B) $2 \pi r h$

C) $2 \pi r (h + r)$

D) $\pi r (h + r)$

Answer: C) $2 \pi r (h + r)$

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

A) 1 kilowatt

B) 1 watt

C) 1 Kilowatt hour

D) 1 HP

Answer: B) 1 watt

80. How much voltage will be required to illuminate a 40 watts fluorescent lamp draws a current of 0.10 amperes?

A) 390 volts

B) 400 volts

C) 395 volts

D) 405 volts

Answer: B) 400 volts

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

A) 4

B) 8

C) 10

D) 6

Answer: B) 8

82. What is the area of a rectangle, whose length and breadth are 10cm and 8cm respectively?

A) 80 cm^2

B) 90 cm^2

C) 75 cm^2

D) 85 cm^2

Answer: A) 80 cm^2

83. What percentage of 80 is 20?

A) 0.4

B) 0.2

C) 0.8

D) 0.25

Answer: D) 0.25

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

A) Brittleness

B) Hardness

C) Ductility

D) Malleability

Answer: C) Ductility

85. Convert 0.456 decimal fraction into percentage?

A) 0.000456

B) 45.6

C) 0.0456

D) 0.456

Answer: B) 45.6

86. What is the square root of 529?

A) 23

B) 12

C) 33

D) 43

Answer: A) 23

87. What is the speed of a train of 80 metre long train passes a railway station platform of 120 metres length in 20 seconds?

A) 32 km/hour

B) 34 km/hour

C) 36 km/hour

D) 30 km/hour

Answer: C) 36 km/hour

88. How much watt second in 1 watt hour?

A) 1000 watt sec

B) 4000 watt sec

- C) 2000 watt sec D) 3600 watt sec

Answer: D) 3600 watt sec

89. What is the volume of mercury in cm^3 , if the mass (m) of mercury is 136 grams (g) and density (r) of mercury is 13.6 g/cm^3 ?

- A) 136 cm^3 B) 10.0 cm^3
C) 13.6 cm^3 D) 10.6 cm^3

Answer: B) 10.0 cm^3

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

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

Answer: A) Cobalt steel

91. What is the capacity of a conical tank of radius 2 m and height 5m?

- A) 41 m^3 B) 11 m^3
C) 21 m^3 D) 31 m^3

Answer: C) 21 m^3

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

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

Answer: B) Fusibility

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

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

Answer: D) Plasticity

94. What is the side of a square whose area is 625 mm^2 ?

- A) 20 mm B) 30 mm
C) 15 mm D) 25 mm

Answer: D) 25 mm

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

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

Answer: C) 0.25 metre

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

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

Answer: C) High carbon steel

97. How much is 8% of 40 kg?

- A) 5.2 kg B) 4.2 kg

- C) 3.2 kg D) 2.2 kg

Answer: C) 3.2 kg

98. Which insulating material is used for making switches?

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

Answer: B) Bakelite

99. What is the specific gravity of the solid, if density of the solid is 19.5 g/cm^3 ?

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

Answer: D) 19.5

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

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

Answer: C) 9.6 watts

101. Which is the example for statically induced emf?

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

Answer: A) Transformer

102. What is the volume of a rectangular tank of 30 m length, 20m width and 10m height?

- A) 6000 m^3 B) 5900 m^3
C) 6200 m^3 D) 6100 m^3

Answer: A) 6000 m^3

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

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

Answer: A) 2.4

104. What is the unit of acceleration of an object?

- A) Metre/second B) Metre/minutes²
C) Metre/minutes D) Metre/second²

Answer: D) Metre/second²

105. Which is the unit electrical power?

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

Answer: B) Watts

106. What is the ratio of power output to power input?

- A) Work
C) Efficiency
- B) Acceleration
D) Energy

Answer: C) Efficiency

107. What is the potential energy, if a body of mass 250 kg is at a height of 30 metre?

- A) 75.57 KJ
C) 74.57 KJ
- B) 73.57 KJ
D) 72.57 KJ

Answer: B) 73.57 KJ

108. Which is brittle metal?

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

Answer: C) Cast iron

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

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

Answer: D) Mass

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

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

Answer: A) Current

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

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

Answer: C) Current

112. What is the equivalent unit for 1 horse power in metric system?

- A) 76 kg.m/sec
C) 75 kg.m/sec
- B) 77 kg.m/sec
D) 78 kg.m/sec

Answer: C) 75 kg.m/sec

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

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

Answer: A) Cu 94%

114. Find the total surface area of a cast iron bar whose length, width and height are 20m, 15m and 12m.

- A) 1440 m^2
C) 1540 m^2
- B) 1640 m^2
D) 1340 m^2

Answer: A) 1440 m^2

115. 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) 160 rpm
C) 180 rpm
- B) 120 rpm
D) 140 rpm

Answer: C) 180 rpm

116. What is the potential energy in a body of mass 10 kg kept on the top of a pole 20 metres height?

- A) 1952 Joules
C) 1942 Joules
- B) 1972 Joules
D) 1962 Joules

Answer: D) 1962 Joules

117. What is the perimeter of a rectangle whose length and breadth are 20 cm and 18 cm?

- A) 76 cm
C) 86 mm
- B) 56 cm
D) 66 cm

Answer: A) 76 cm

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

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

Answer: C) Invar steel

119. Which cast iron cannot be welded?

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

Answer: C) White cast iron

120. What is called if a body does not change its position with respect to its surroundings?

- A) Body at motion
C) Speed
- B) Body at rest
D) Velocity

Answer: B) Body at rest

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

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

Answer: D) 36

122. What is called if a body changes its position with respect to its surroundings?

- A) Body at motion
C) Body at rest
- B) Velocity
D) Speed

Answer: A) Body at motion

123. What is the work done in joules if a load of 15.5 kg is lifted through a height of 4.4 metres?

- A) 669 Joules
C) 659 Joules
- B) 649 Joules
D) 639 Joules

Answer: A) 669 Joules

124. How many ergs for 1 Joule?

- A) 10^3 ergs B) 10^9 ergs
C) 10^7 ergs D) 10^5 ergs

Answer: C) 10^7 ergs

125. What is the area of a sector of a circle of radius 5 cm and its angle is 96 Degree?

- A) 20.89 cm^2 B) 20.98 cm^2
C) 20.39 cm^2 D) 20.93 cm^2

Answer: D) 20.93 cm^2

126. What is the retardation of a car moving with a velocity of 50 km/hr is brought to rest in 45 seconds?

- A) 0.40 m/sec^2 B) 0.10 m/sec^2
C) 0.20 m/sec^2 D) 0.30 m/sec^2

Answer: D) 0.30 m/sec^2

127. What is the cross sectional area of a circular ring of $D = 38 \text{ mm}$ $d = 32 \text{ mm}$?

- A) 320 mm^2 B) 340 mm^2
C) 350 mm^2 D) 330 mm^2

Answer: D) 330 mm^2

128. What is the work done, if a force of 250 newtons acted upon a body and the body has been moved through a distance of 15 metres?

- A) 3730 Joules B) 3720 Joules
C) 3750 Joules D) 3740 Joules

Answer: C) 3750 Joules

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

- A) 6 B) 18
C) 2 D) 24

Answer: A) 6

130. What are fundamental units?

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

Answer: B) Length, Mass, Time

131. What metals contained in brass alloy?

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

Answer: C) Copper and zinc

132. What is the area of a right angled triangle having a base 10 cm and height 5 cm?

- A) 20 sq.cm B) 35 sq.cm
C) 30 sq.cm D) 25 sq.cm

Answer: D) 25 sq.cm

133. What is velocity of a body travels a distance of 168 metres in a line in 21 seconds?

- A) 10 m/sec B) 6 m/sec
C) 12 m/sec D) 8 m/sec

Answer: D) 8 m/sec

134. 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) Lenz's law B) Hooke's law
C) Newton's law D) Ohm's law

Answer: D) Ohm's law

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

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

Answer: C) Grey cast iron

136. Convert 52% into fraction?

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

Answer: C) $(13/25)$

137. What is the specific gravity of the metal, if the weighs 6.5 kgf in air and 3.5 kgf in water?

- A) 3.166 B) 1.166
C) 6.166 D) 2.166

Answer: D) 2.166

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

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

Answer: D) 05:01

139. What is the formula for speed?

- A) Distance covered/Time B) Distance in definite direction /Time
C) Change in velocity/Time D) Change in momentum/Time

Answer: A) Distance covered/Time

140. How many liters of water a cylindrical tank of radius 75 cm and height 100 cm can hold?

- A) 1766.25 liters B) 1769.25 liters
C) 1768.25 liters D) 1767.25 liters

Answer: A) 1766.25 liters

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

- A) 0.185 B) 0.175

C) 0.195

D) 0.165

Answer: A) 0.185

142. Which one is non-metal?

A) Brass

B) Mercury

C) Graphite

D) Iron

Answer: C) Graphite

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

A) Rs 260

B) Rs 240

C) Rs 200

D) Rs 220

Answer: B) Rs 240

144. What is the weight force of a car has a mass of 800 kg?(Take $g = 9.81\text{m/sec}$)

A) 7848 Newton

B) 7748 Newton

C) 7487 Newton

D) 7847 Newton

Answer: A) 7848 Newton

145. What is the area of a (A) semicircle whose dia is 20 cm (d)?

A) 147.1 cm^2

B) 167.1 cm^2

C) 177.1 cm^2

D) 157.1 cm^2

Answer: D) 157.1 cm^2

146. What is the rate of change of displacement of a body?

A) Velocity

B) Body at motion

C) Body at rest

D) Speed

Answer: A) Velocity

147. What denotes letter M in MKS system?

A) Micron

B) Millimeter

C) Mile

D) Meter

Answer: D) Meter

148. What is the kinetic energy of a bullet of mass 5gm travels with a speed of 500 m/sec?

A) 620 Joules

B) 635 Joules

C) 630 Joules

D) 625 Joules

Answer: D) 625 Joules

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

A) Electric furnace

B) Mild steel - Rever battery

C) Cupola

D) Blast furnace

Answer: D) Blast furnace

150. What is the total surface area of a cylinder having radius 2 metres and height 5 metres?

A) 86 sq.metre

B) 90 sq.metre

C) 92 sq.metre

D) 88 sq.metre

Answer: D) 88 sq.metre

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

A) $I = V/R$

B) $I = R$

C) $I = R/V$

D) $I = 1/V$

Answer: A) $I = V/R$

152. Which is the example for dynamically induced Emf?

A) Car

B) Generator

C) Motor

D) Motor bike

Answer: B) Generator

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

A) Corrosion

B) Ductility

C) Structure

D) Fusibility

Answer: B) Ductility

154. What is the acceleration of a car if the speed of the car has increased from 25 km per hour to 40 km per hour in one minute?

A) 0.069 m/sec^2

B) 0.059 m/sec^2

C) 0.59 m/sec^2

D) 0.69 m/sec^2

Answer: A) 0.069 m/sec^2

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

A) 13.99

B) 13.79

C) 13.89

D) 13.69

Answer: A) 13.99

156. What is the acceleration of an aeroplane taking off from landing field has to run 700 metres if it leaves the ground in 10 seconds from the start?

A) 12

B) 10

metre/sec²

metre/sec²

C) 14

D) 8

metre/sec²

metre/sec²

Answer: A) 12 metre/sec²

157. What is the unit for velocity?

A) Metre/hour

B) Metre/second

C)

Metre/second²

D) Metre/minute

Answer: B) Metre/second

158. 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) 97.8 ohms

C) 95.8 ohms

D) 96.8 ohms

Answer: D) 96.8 ohms

159. Which metal contains iron as a major content?

- A) Bronze metal
- B) Brass metal
- C) Zinc
- D) Ferrous metal

Answer: D) Ferrous metal

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

- A) 20 days
- B) 26 days
- C) 22 days
- D) 24 days

Answer: D) 24 days

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

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

Answer: D) wb/m

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

- A) Mechanical strenth
- B) Di-electric strength
- C) Specific resistance
- D) Non absorption

Answer: B) Di-electric strength

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

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

Answer: D) Resistance

164. 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

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

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

Answer: D) 110 Volts

166. Which property of metal has its power of returning to its original shape after the applied force is released?

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

Answer: A) Elasticity