

Duration: 30 Mins

Total Marks: 166

Q.ID: ITISKILL8761EC

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

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

Answer: B) Silicon

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

- A) 92 sq.metre
- B) 88 sq.metre
- C) 90 sq.metre
- D) 86 sq.metre

Answer: B) 88 sq.metre

3. Which one is non-metal?

- A) Graphite
- B) Mercury
- C) Iron
- D) Brass

Answer: A) Graphite

4. How much watt second in 1 watt hour?

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

Answer: A) 3600 watt sec

5. Which machine converts mechanical energy into electrical energy?

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

Answer: C) Generator

6. Which law states about electromagnetic induction?

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

Answer: B) Faraday's law

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

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

Answer: D) Weight

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

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

Answer: B) 75 kg.m/sec

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

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

Answer: B) 25 sq.cm

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

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

Answer: A) 110 Volts

11. 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
- B) 6 grams
- C) 8 grams
- D) 9 grams

Answer: B) 6 grams

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

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

Answer: D) Cu 94%

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

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

Answer: B) Fundamental and derived

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

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

Answer: B) 100.2 watts

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

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

Answer: C) 876.82 cm^2

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

- A) 625 Joules
- B) 635 Joules

C) 620 Joules D) 630 Joules

Answer: A) 625 Joules

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

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

Answer: D) Plasticity

18. Which insulating material is used for making switches?

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

Answer: B) Bakelite

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

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

Answer: D) 0.185

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

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

Answer: C) 3750 cm^2

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

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

Answer: B) 24 days

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

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

Answer: A) Energy

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

- A) 26 cm^2 B) 36 cm^2
C) 324 cm^2 D) 72 cm^2

Answer: C) 324 cm^2

24. What is the unit for velocity?

- A) Metre/second^2 B) Metre/second
C) Metre/minute D) Metre/hour

Answer: B) Metre/second

25. 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) Di-electric strength

C) Specific resistance D) Mechanical strenth

Answer: B) Di-electric strength

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

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

Answer: B) 1 watt

27. 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) 10 hours D) 18 hours

Answer: C) 10 hours

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

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

Answer: B) 17 ohms

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

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

Answer: A) 5 Amps

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

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

Answer: D) $I = V/R$

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

- A) " $7/28$ " B) " $7/52$ "
C) $(52/7)$ D) " $28/7$ "

Answer: C) $(52/7)$

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

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

Answer: C) 1962.5 cm^2

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

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

Answer: C) Mass

34. What is the voltage of the immersion heater? $P =$

500 watts
 I = 2.27 Amps
 V = _____Volts

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

Answer: A) 220.3 volts

35. How many millimetres are there in 1 inch?

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

Answer: A) 25.4 mm

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

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

Answer: B) 735.5 watts

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

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

Answer: D) 628 cm^2

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

- A) 0.02% to 0.03% B) 0.15% to 0.25%
C) 0.25% to 0.50% D) 0.50% to 1.50%

Answer: D) 0.50% to 1.50%

39. 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

40. What percentage of 80 is 20?

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

Answer: D) 0.25

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

- A) 726 watts B) 746 watts
C) 756 watts D) 736 watts

Answer: B) 746 watts

42. What is the current?
 R = 50 Ohms
 220 Volts

 I = _____Amps

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

Answer: D) 4.4 Amps

43. What is the square root of 0.017?

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

Answer: B) 0.13

44. Which metal cannot be forged?

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

Answer: A) Cast iron

45. What is the density of aluminium?

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

Answer: B) 2.7 g/cm^3

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

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

Answer: D) 13.99

47. 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) 10.6 cm^3
C) 10.0 cm^3 D) 13.6 cm^3

Answer: C) 10.0 cm^3

48. What is called the ratio between the density of a substances density of water at 4 Degree Centigrade?

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

Answer: A) Specific gravity

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

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

Answer: D) Scalar quantity

50. What is the block weighs (W) in kg, if volume (V) is 320 cm^3 and density 8.9 g/cm^3 ?

- A) 2.648 kg B) 2.948 kg
C) 2.848 kg D) 2.448

Answer: C) 2.848 kg

51. What is the formula for acceleration?

- A) Metre/second^2 B) Metre/hour
C) Metre/second D) Metre/minute

Answer: A) Metre/second^2

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

- A) 19.5 B) 8

C) 18.5

D) 19

Answer: A) 19.5

C) 981 Newtons

D) 98.1 Newtons

Answer: A) 9.81 Newtons

53. What is the formula for induced emf?

A) $BL \sin \theta$ volts

B) $BLV \sin \theta$ volts

C) $B^2 L^2 V \sin \theta$ volts

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

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

62. What is the ore of aluminium?

A) Hematite

B) Limonite

C) Bauxite

D) Malachite

Answer: C) Bauxite

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

A) 1.2 W

B) 3 W

C) 12 W

D) 10 W

Answer: C) 12 W

63. 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

B) 0.059

m/sec²

m/sec²

C) 0.59 m/sec² D) 0.69 m/sec²

Answer: A) 0.069 m/sec²

55. What is the square root of 529?

A) 43

B) 12

C) 23

D) 33

Answer: C) 23

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

A) 2020 watts

B) 2030 watts

C) 2000 watts

D) 2010 watts

Answer: C) 2000 watts

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

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

B) $(\frac{13}{10})$

C) $(\frac{3}{10})$

D) $(\frac{12}{10})$

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

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

A) 1 dyne

B) 10 dynes

C) 1 Joule

D) 10 Joules

Answer: C) 1 Joule

57. Which is the unit of current?

A) Ampere

B) Watt

C) Volt

D) Ohm

Answer: A) Ampere

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

A) 75 cm²

B) 90 cm²

C) 85 cm²

D) 80 cm²

Answer: D) 80 cm²

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

A) Malleability

B) Ductility

C) Hardness

D) Brittleness

Answer: B) Ductility

67. What is the weight force of a car has a mass of 800 kg? (Take $g = 9.81 \text{ m/sec}^2$)

A) 7848 Newton

B) 7487 Newton

C) 7847 Newton

D) 7748 Newton

Answer: A) 7848 Newton

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

A) Fusibility

B) Tenacity

C) Malleability

D) Conductivity

Answer: A) Fusibility

68. What are fundamental units?

A) Length, Mass, Area

B) Length, Pressure, Volume

C) Length, Mass, Volume

D) Length, Mass, Time

Answer: D) Length, Mass, Time

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

A) 20.89 cm²

B) 20.93 cm²

C) 20.98 cm²

D) 20.39 cm²

Answer: B) 20.93 cm²

69. What is the volume (V) of mercury in cm³, if mass (m) of mercury is 1 kg and density (ρ) is 13.6 g/cm³?

A) 73.53 cm³

B) 73.23 cm³

C) 73.43 cm³

D) 73.33 cm³

Answer: A) 73.53 cm³

61. How many newtons for 1 kilogram?

A) 9.81 Newtons

B) 0.981 Newtons

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

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

Answer: C) wb/m

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

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

Answer: C) 190 grams

72. Which is the unit of resistance?

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

Answer: A) Ohm

73. Which is brittle metal?

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

Answer: B) Cast iron

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

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

Answer: C) 1847 c.c

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

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

Answer: B) Blast furnace

76. Which is the unit electrical power?

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

Answer: B) Watts

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

- A) 21.26
C) 23.46
B) 22.26
D) 22.46

Answer: C) 23.46

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

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

Answer: D) Cupola

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

- A) 0.15% to 0.25%
B) 0.02% to 0.03%

- C) 0.50% to 1.50%
D) 0.25% to 0.50%

Answer: A) 0.15% to 0.25%

80. Which is the example for statically induced emf?

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

Answer: D) Transformer

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

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

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

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

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

Answer: B) Metre/second²

83. Which insulator is used in overhead lines?

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

Answer: C) Porcelain

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

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

Answer: B) 39.59 cm

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

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

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

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

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

Answer: D) 73.57 KJ

87. Which alloy steel is used for making precision instrument?

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

Answer: D) Invar steel

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

Answer: B) Ohm's law

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

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

Answer: C) Body at rest

90. Convert 52% into fraction?

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

Answer: A) $(13/25)$

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

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

Answer: B) Current

92. Which metal contains iron as a major content?

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

Answer: D) Ferrous metal

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

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

Answer: B) Current

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

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

Answer: B) Grey cast iron

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

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

Answer: A) 0.30 m/sec^2

96. Which is mineral insulator

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

Answer: A) Mica

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

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

Answer: D) 05:01

98. Which is equal to electric power?

- A) $I^2 R$ watts B) RI
C) IRA D) $R^2 I$ watts

Answer: A) $I^2 R$ watts

99. What is called if a body posses both magnitude and direction of velocity?

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

Answer: D) Vector quantity

100. 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) 160 rpm D) 140 rpm

Answer: B) 180 rpm

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

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

Answer: A) 47 cm^2

102. 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) 10 m
C) 20 m D) 40 m

Answer: C) 20 m

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

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

Answer: C) 2.4

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

- A) Low alloy steel B) High alloy steel
C) High speed steel D) Mild steel

Answer: D) Mild steel

105. 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 x 105 kg meter B) 12 x 104 kg meter

- C) 12 x 107 kg meter D) 12 x 106 kg meter

Answer: A) 12 x 105 kg meter

106. What is the cross sectional area of a circular ring of $D = 38$ mm $d = 32$ mm?

- A) 350 mm² B) 340 mm²
C) 330 mm² D) 320 mm²

Answer: C) 330 mm²

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

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

Answer: A) Efficiency

108. What is the formula for speed?

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

Answer: A) Distance covered/Time

109. What denotes letter M in MKS system?

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

Answer: B) Meter

110. Which alloy used in electric lamp as filament?

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

Answer: D) Tungsten

111. What is the formula for kinetic energy?

- A) $(2/3) mv$ joule B) $(2/3) mv^2$ joule
C) $(1/2) mv^2$ joule D) $(1/2) mv$ joule

Answer: C) $(1/2) mv^2$ joule

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

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

Answer: A) 6

113. 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) 1.75 metre
C) 1.25 metre D) 1.65 metre

Answer: D) 1.65 metre

114. What is the rated power if an adjustable resistor bears the following label 1.5 k ohms/ 0.08A?

- A) 9.6 watts B) 9.4 watts

- C) 9.2 watts D) 9.8 watts

Answer: A) 9.6 watts

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

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

Answer: C) Elasticity

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

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

Answer: C) 36

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

- A) 1440 m² B) 1540 m²
C) 1640 m² D) 1340 m²

Answer: A) 1440 m²

118. Convert 0.456 decimal fraction into percentage?

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

Answer: C) 45.6

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

- A) $2 \pi r h$ B) $\pi r (h + r)$
C) $2 \pi r (h + r)$ D) $\pi r h$

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

120. What is the definition of ratio?

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

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

121. 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) 96.8 ohms
C) 95.8 ohms D) 97.8 ohms

Answer: B) 96.8 ohms

122. What metals contained in brass alloy?

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

Answer: C) Copper and zinc

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

- A) Manganese steel B) Silicon steel

C) Cobalt steel

D) Vanadium steel

Answer: C) Cobalt steel

124. 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) 3750 Joules

B) 3730 Joules

C) 3720 Joules

D) 3740 Joules

Answer: A) 3750 Joules

125. What is the formula for velocity?

A) Change in velocity/Time

B) Displacement/Time

C) Change of momentum/Time

D) Distance covered/Time

Answer: B) Displacement/Time

126. What is the work done in unit time?

A) Force

B) Energy

C) Power

D) Acceleration

Answer: C) Power

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

A) Malleability

B) Toughness

C) Hardness

D) Ductility

Answer: C) Hardness

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

A) Structure

B) Corrosion

C) Fusibility

D) Ductility

Answer: D) Ductility

129. 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

B) 1972 Joules

C) 1962 Joules

D) 1942 Joules

Answer: C) 1962 Joules

130. Which among the following is an insulator?

A) Silver

B) Mica

C) Aluminium

D) Copper

Answer: B) Mica

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

A) Velocity

B) Body at rest

C) Speed

D) Body at motion

Answer: A) Velocity

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

A) 0.25% to 0.5%

B) 0.05% to 0.15%

C) 0.5% to 1.5%

D) 0.15% to 0.25%

Answer: A) 0.25% to 0.5%

133. How many ergs for 1 Joule?

A) 10^5 ergs

B) 10^7 ergs

C) 10^9 ergs

D) 10^3 ergs

Answer: B) 10^7 ergs

134. 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

B) 659 Joules

C) 639 Joules

D) 649 Joules

Answer: A) 669 Joules

135. What is the formula for potential energy?

A) $\frac{2}{3} mgh$ joule

B) $\frac{1}{2} mgh$ joule

C) mgh joule

D) mgh^2 joule

Answer: C) mgh joule

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

A) 24

B) 18

C) 6

D) 2

Answer: C) 6

137. 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) 0.23 metre

C) 0.28 metre

D) 0.29 metre

Answer: A) 0.25 metre

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

A) $21 m^3$

B) $11 m^3$

C) $31 m^3$

D) $41 m^3$

Answer: A) $21 m^3$

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

A) 66 cm

B) 56 cm

C) 76 cm

D) 86 mm

Answer: C) 76 cm

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

A) $1436 cm^3$

B) $1636 cm^3$

C) $1463 cm^3$

D) $1346 cm^3$

Answer: A) $1436 cm^3$

141. What is the density (ρ) in g/cm^3 of an iron cube, if it weighs (W) 4.8 kg and volume (V) is $640 cm^3$?

A) $6.6 g/cm^3$

B) $7.5 g/cm^3$

C) 7.2 g/cm^3 D) 6.9 g/cm^3

Answer: B) 7.5 g/cm^3

142. Which is very good conductor?

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

Answer: D) Copper

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

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

Answer: C) 6000 m^3

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

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

Answer: B) 2.166

145. Which cast iron cannot be welded?

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

Answer: A) White cast iron

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

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

Answer: C) 1766.25 liters

147. 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) 8 m/sec D) 12 m/sec

Answer: C) 8 m/sec

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

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

Answer: A) 8

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

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

Answer: D) 25 mm

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

- A) Midium carbon steel B) Low carbon steel

C) Stainless steel

D) High carbon steel

Answer: D) High carbon steel

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

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

Answer: A) Body at motion

152. 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) 10 B) 14
metre/sec² metre/sec²
C) 12 D) 8
metre/sec² metre/sec²

Answer: C) 12 metre/sec²

153. What does EMF stands for?

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

Answer: C) Electro Motive Force

154. Which is the example for dynamically induced Emf?

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

Answer: C) Generator

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

- A) 157.1 cm^2 B) 147.1 cm^2
C) 177.1 cm^2 D) 167.1 cm^2

Answer: A) 157.1 cm^2

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

- A) 400 volts B) 395 volts
C) 390 volts D) 405 volts

Answer: A) 400 volts

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

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

Answer: A) Density

158. 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

Answer: C) Rs 240

159. 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) 34 km/hour
- B) 30 km/hour
- C) 36 km/hour
- D) 32 km/hour

Answer: C) 36 km/hour

160. What is the product of 0.003×0.5 ?

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

Answer: A) 0.0015

161. How much is 8% of 40 kg?

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

Answer: D) 3.2 kg

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

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

Answer: C) Resistance

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

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

Answer: D) 88 mm

164. Convert decimal 0.000659 to fraction?

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

Answer: B) $(659/1000000)$

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

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

Answer: C) 33 ohms

166. What is the unit of speed?

- A) Metre/second
- B) Metre/hour
- C) Metre/second^2
- D) Metre/minute

Answer: A) Metre/second
