

Duration: 30 Mins

Total Marks: 186

ID: ITISKILL22388J

Student Name: _____

Roll No: _____

1. What percentage of 80 is 20?

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

2. 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

3. What is the side of a square whose area is 625 mm²?

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

4. Which metal cannot be forged?

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

5. What is the side of a square whose area is 625 mm²? | 625 ಎಂಎಂ² ವಿಸ್ತೀರ್ಣವಿರುವ ಚೌಕದ ಬದಿ ಎಷ್ಟು?

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

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

- A) 0.20 m/sec² B) 0.10 m/sec²
C) 0.30 m/sec² D) 0.40 m/sec²

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

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

8. What is the specific gravity of the solid, if density of the solid is 19.5 g/cm³?

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

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

- A) Nitrite butadiene B) Hypalone

C) Butyl

D) Silicon

10. 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/sec² B) 0.59 m/sec²
C) 0.69 m/sec² D) 0.059 m/sec²

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

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

12. What is the formual for induced emf?

- A) BLV sinq volts B) BL sinq volts
C) B²V sinq volts D) B²L sinq volts

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

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

14. What is known for the temperature at which any solid melts into liquid? | ಯಾವುದೇ ಘನ ದ್ರವಕ್ಕೆ ಕರಗುವ ತಾಪಮಾನಕ್ಕೆ ಏನು ಎಂದು ಕರೆಯಲಾಗುತ್ತದೆ?

- A) Melting point | ಕರಗುವ ಬಿಂದು B) Latent heat of fusion | ಸುಪ್ತ ಶಾಖ
C) Boiling point | ಕುದಿಯುವ ಬಿಂದು D) Latent heat of vaporisation | ಆವಿಯಾಗುವಿಕೆಯ ಸುಪ್ತ ಶಾಖ

15. What is the square root of 0.017?

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

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

- A) 1932.5 cm² B) 1942.5 cm²
C) 1952.5 cm² D) 1962.5 cm²

17. 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) 200.3 volts
D) 220.3 volts

18. Which is the example for dynamically induced Emf?

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

19. What is the formula for velocity?

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

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

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

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

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

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

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

23. 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) 10 hours
B) 24 hours
C) 18 hours
D) 12 hours

24. Which is equal to $\sin\theta$? | ಯಾವುದು $\sin\theta$ ಗೆ ಸಮಾನ?

(A) $\frac{\text{Opposite side}}{\text{Hypotenuse}}$

(B) $\frac{\text{Hypotenuse}}{\text{Opposite side}}$

(C) $\frac{\text{Adjacent side}}{\text{Hypotenuse}}$

(D) $\frac{\text{Hypotenuse}}{\text{Adjacent side}}$

- A) C
B) D
C) A
D) B

25. Which one of the following properties is the mechanical

properties of metal?

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

26. What is the square root of 529? | 529 ರ ವರ್ಗಮೂಲ ಯಾವುದು?

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

27. 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) 32 km/hour
D) 36 km/hour

28. 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) $12 \times 10^4 \text{ kg meter}$
C) $12 \times 10^5 \text{ kg meter}$
D) $12 \times 10^7 \text{ kg meter}$

29. 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) 6 grams
B) 8 grams
C) 7 grams
D) 9 grams

30. Which law states about electromagnetic induction?

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

31. Which is the unit of resistance?

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

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

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

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

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

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

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

35. Which alloy used in electric lamp as filament?

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

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

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

37. 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 Joule |
| C) 1 dyne | D) 10 dynes |

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

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

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

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

40. What does EMF stands for?

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

41. How many watts for 1 horse power in British system? | ಬ್ರಿಟಿಷ್ ವ್ಯವಸ್ಥೆಯಲ್ಲಿ 1 ಕುದುರೆ ಶಕ್ತಿಗಾಗಿ (HP)ಎಷ್ಟು ವ್ಯಾಟ್?

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

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

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

43. What denotes letter M in MKS system?

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

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

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

45. What metals contained in brass alloy?

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

46. Which is the unit of current?

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

47. What is the square root of 529?

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

48. 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) Specific resistance |
| C) Mechanical strenth | D) Di-electric strength |

49. How many ergs for 1 Joule?

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

50. What maximum height a stone will reach if it is thrown upwords with a velocity of 20m/sec?(g = 10m/sec²)

- | | |
|---------|---------|
| A) 40 m | B) 30 m |
| C) 10 m | D) 20 m |

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

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

52. How many newtons for 1 kilogram?

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

53. What is the S.I unit of heat? | ಶಾಖದ ಎಸ್ಐ ಮೂಲಮಾನ ಯಾವುದು?

- | | |
|---|---|
| A) British thermal unit ಬ್ರಿಟಿಷ್ ಉಷ್ಣ ಘಟಕ | B) Calorie ಕ್ಯಾಲೋರಿ |
| C) Joule ಜೌಲ್ | D) Centigrade heat unit ಸೆಂಟಿಗ್ರೇಡ್ ಶಾಖ ಘಟಕ |

54. 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) 8 metre/sec^2 | B) 10 metre/sec^2 |
| C) 14 metre/sec^2 | D) 12 metre/sec^2 |

55. 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
C) Ohm's law

B) Newton's law
D) Lenz's law

56. How many millimetres are there in 1 inch? | 1 ಇಂಚಿನಲ್ಲಿ ಎಷ್ಟು ಮಿಲಿಮೀಟರ್‌ಗಳಿವೆ?

A) 25.4 mm
C) 2.54 mm

B) 2.45 mm
D) 24.5 mm

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

A) Plasticity
C) Tenacity

B) Malleability
D) Elasticity

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

A) Cu 96%
C) Cu 92%

B) Cu 98%
D) Cu 94%

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

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

60. Which metal contains iron as a major content?

A) Zinc
C) Brass metal

B) Ferrous metal
D) Bronze metal

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

A) 9.6 watts
C) 9.4 watts

B) 9.2 watts
D) 9.8 watts

62. 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
C) 210 grams

B) 220 grams
D) 190 grams

63. What is the work done in unit time?

A) Energy
C) Force

B) Power
D) Acceleration

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

A) 105 Volts
C) 110 Volts

B) 108 Volts
D) 100 Volts

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

A) 0.05% to 0.15%
C) 0.5% to 1.5%

B) 0.25% to 0.5%
D) 0.15% to 0.25%

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

A) Velocity
C) Speed

B) Body at motion
D) Body at rest

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

A) 76 kg.m/sec
C) 78 kg.m/sec

B) 75 kg.m/sec
D) 77 kg.m/sec

68. Convert 52% into fraction?

A) (11/25)
C) (13/25)

B) (17/25)
D) (9/25)

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

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

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

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

71. Which is equal to electric power?

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

B) RI
D) $R^2 I$ watts

72. What is the formula for acceleration?

A) Metre/hour
C) Metre/second

B) Metre/minute
D) Metre/second^2

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

A) 8
C) 4

B) 10
D) 6

74. 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
C) 7487 Newton

B) 7748 Newton
D) 7847 Newton

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

A) 35 sq.cm
C) 30 sq.cm

B) 25 sq.cm
D) 20 sq.cm

76. What is called mass per unit volume of a substance? | ವಸ್ತುವಿನ ಪ್ರತಿ ಯೂನಿಟ್ ಪರಿಮಾಣದ ದ್ರವ್ಯರಾಶಿಗೆ ಏನು ಎಂದು ಕರೆಯಲಾಗುತ್ತದೆ?

A) Volume | ಗಾತ್ರ
C) Density | ಸಾಂದ್ರತೆ

B) Mass | ದ್ರವ್ಯರಾಶಿ
D) Weight | ತೂಕ

77. What is the formula for kinetic energy?

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

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

- A) 620 Joules
B) 630 Joules
C) 635 Joules
D) 625 Joules

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

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

80. 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

81. 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 200
C) Rs 240
D) Rs 260

82. 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) 73.33 cm^3
B) 73.43 cm^3
C) 73.53 cm^3
D) 73.23 cm^3

83. What is the value of $\tan 45^\circ$ if $\sin 45^\circ = \frac{1}{\sqrt{2}}$? | $\sin 45^\circ = \frac{1}{\sqrt{2}}$ ಆಗಿದ್ದರೆ $\tan 45^\circ$ ಮೌಲ್ಯವೆಷ್ಟು?

(A) $\frac{1}{\sqrt{2}}$

(B) $\frac{\sqrt{3}}{2}$

(C) 1

(D) $\frac{1}{\sqrt{3}}$

- A) B
C) C
B) A
D) D

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

- A) 90 cm^2
B) 80 cm^2

- C) 85 cm^2
D) 75 cm^2

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

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

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

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

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

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

88. Which insulator is used in over head lines?

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

89. What denotes letter $\square$ M $\square$ in MKS system? $\square$ ಎಂಬ ಅಕ್ಷರ ಏನನ್ನು ಸೂಚಿಸುತ್ತದೆ?

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

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

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

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

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

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

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

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

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

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

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

95. What is the product of 0.003×0.5 ?

- A) 0.15
B) 0.00015

C) 0.015

D) 0.0015

A) 0.185

B) 0.175

C) 0.195

D) 0.165

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

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

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

A) 90 sq.metre

B) 88 sq.metre

C) 92 sq.metre

D) 86 sq.metre

98. What are the two classifications of system of units? |
ಮೂಲಮಾನಗಳ ವ್ಯವಸ್ಥೆಯ ಎರಡು ವರ್ಗೀಕರಣಗಳು ಯಾವುವು?

A) Gravitational and non-gravitational | ಗುರುತ್ವ ಮತ್ತು ಗುರುತ್ವಾಕರ್ಷಣೆಯಿಲ್ಲದ

B) Fundamental and derived | ಮೂಲಭೂತ ಮತ್ತು ಪಡೆಯಲಾಗಿದೆ

C) British and Metric | ಬ್ರಿಟಿಷ್ ಮತ್ತು ಮೆಟ್ರಿಕ್

D) Metric and International | ಮೆಟ್ರಿಕ್ ಮತ್ತು ಅಂತರರಾಷ್ಟ್ರೀಯ

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

A) Speed

B) Velocity

C) Scalar quantity

D) Vector quantity

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

A) Ductility

B) Hardness

C) Malleability

D) Brittleness

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

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

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

A) 95.8 ohms

B) 94.8 ohms

C) 96.8 ohms

D) 97.8 ohms

103. What is the unit of speed?

A) Metre/second²

B) Metre/second

C) Metre/minute

D) Metre/hour

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

A) 1846 c.c

B) 1844 c.c

C) 1842 c.c

D) 1847 c.c

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

106. 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) 10.0 cm^3 B) 13.6 cm^3 C) 136 cm^3 D) 10.6 cm^3

107. 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) 0.28 metre

C) 0.29 metre

D) 0.23 metre

108. What are fundamental units? | ಮೂಲಭೂತ ಮೂಲಮಾನಗಳು ಯಾವುವು?

A) Length, Pressure, Volume | ಉದ್ದ, ಒತ್ತಡ, ಘನ ಫಲ

B) Length, Mass, Time | ಉದ್ದ, ದ್ರವ್ಯರಾಶಿ, ಸಮಯ

C) Length, Mass, Area | ಉದ್ದ, ದ್ರವ್ಯರಾಶಿ, ವಿಸ್ತೀರ್ಣ

D) Length, Mass, Volume | ಉದ್ದ, ದ್ರವ್ಯರಾಶಿ, ಘನ ಫಲ

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

A) Resistance

B) Current

C) Voltage

D) EMF

110. What is the ore of aluminium?

A) Bauxite

B) Hematite

C) Lemonite

D) Mallatite

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

A) Velocity

B) Body at motion

C) Body at rest

D) Speed

112. What is the formula for speed?

A) Change in momentum/Time

B) Distance covered/Time

C) Distance in definite direction /Time

D) Change in velocity/Time

113. What is the ratio of power output to power input? | ವಿದ್ಯುತ್ ಉತ್ಪಾದನೆಯ ವಿದ್ಯುತ್ ಇನ್ಪುಟ್ ಅನುಪಾತ ಎಷ್ಟು?

A) Energy

B) Acceleration

C) Work

D) Efficiency

114. What is the unit for velocity?

A) Metre/second

B) Metre/minute

C) Metre/hour

D) Metre/second²

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

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

116. What is the current?
 R = 50 Ohms
 220 Volts
 I = ____Amps

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

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

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

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

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

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

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

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

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

121. Simplify: $(3/4) + (2/5) - (5/20)$

- A) $(13/10)$
B) $(12/10)$
C) $(9/10)$
D) $(3/10)$

122. How much power does it consumes 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

123. Which one is non-metal?

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

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

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

125. Which is the unit of current? | ಪ್ರವಾಹದ ಮೂಲಮಾನ ಯಾವುದು?

- A) Ampere | ಆಂಪಿಯರ್
B) Volt | ವೋಲ್ಟ್

C) Watt | ವ್ಯಾಟ್

D) Ohm | ಓಂ

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

- A) Insulating metals
B) Non-Insulating metals
C) Ferrous metals
D) Non-ferrous metals

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

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

128. Which machine converts mechanical energy into electrical energy?

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

129. Which cast iron cannot be welded?

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

130. What is the area of a rectangle, whose length and breadth are 10cm and 8cm respectively? | ಉದ್ದ ಮತ್ತು ಅಗಲ ಕ್ರಮವಾಗಿ 10 ಸೆಂ.ಮೀ ಮತ್ತು 8 ಸೆಂ.ಮೀ. ಇರುವ ಆಯತದ ವಿಸ್ತೀರ್ಣ ಎಷ್ಟು?

- A) 80 cm^2
B) 90 cm^2
C) 85 cm^2
D) 75 cm^2

131. What is termed as the quantity of matter contained in a body? | ವಸ್ತುವಿನಲ್ಲಿ ಇರುವ ದ್ರವ್ಯದ ಪರಿಮಾಣವನ್ನು ಎಂದು ಏನು ಕರೆಯಲಾಗುತ್ತದೆ?

- A) Density | ಸಾಂದ್ರತೆ
B) Mass | ದ್ರವ್ಯರಾಶಿ
C) Volume | ಗಾತ್ರ
D) Specific gravity | ವಿಶಿಷ್ಟ ಗುರುತ್ವ

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

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

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

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

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

- A) Ductility
B) Brittleness

C) Elasticity

D) Plasticity

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

A) 5900 m³

B) 6100 m³

C) 6000 m³

D) 6200 m³

136. How much is 8% of 40 kg?

A) 4.2 kg

B) 3.2 kg

C) 5.2 kg

D) 2.2 kg

137. What is the density of aluminium?

A) 3.7 g/cm³

B) 2.7 g/cm³

C) 5.7 g/cm³

D) 4.7 g/cm³

138. Which is the example for statically induced emf?

A) Motor

B) Transformer

C) Generator

D) Refrigerator

139. What is the boiling point of water? | ನೀರಿನ ಕುದಿಯುವ ಬಿಂದು ಯಾವುದು?

A) 100°C

B) 32°C

C) 212°C

D) 0°C

140. What is the flow of electrons in any conductor? | ಯಾವುದೇ ಕಂಡಕ್ಟರ್‌ನಲ್ಲಿ ಎಲೆಕ್ಟ್ರಾನ್‌ಗಳ ಹರಿವನ್ನು ಏನು ಎಂದು ಕರೆಯಲಾಗುತ್ತದೆ?

A) Current | ಕರೆಂಟ್

B) Power | ಶಕ್ತಿ

C) Voltage | ವೋಲ್ಟೇಜ್

D) Resistance | ಪ್ರತಿರೋಧ

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

A) 11 ohms

B) 1/17 ohms

C) 17 ohms

D) 7 ohm

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

A) "7/52"

B) "28/7"

C) (52/7)

D) "7/28"

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

A) High speed steel

B) Mild steel

C) Low alloy steel

D) High alloy steel

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

A) 8 m/sec

B) 6 m/sec

C) 12 m/sec

D) 10 m/sec

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

A) 04:08

B) 05:01

C) 02:04

D) 08:04

146. What is the ratio of mechanical advantage to the velocity ratio of a simple machine? | ಸರಳ ಯಂತ್ರದ ಯಾಂತ್ರಿಕ ಲಾಭ ಮತ್ತು ವೇಗ ಅನುಪಾತ ದ ಅನುಪಾತ ಏನು?

A) Effort | ಪ್ರಯತ್ನ

B) Power | ಶಕ್ತಿ

C) Efficiency | ದಕ್ಷತೆ

D) Load | ಲೋಡ್

147. Convert 0.456 decimal fraction into percentage?

A) 0.456

B) 0.000456

C) 0.0456

D) 45.6

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

A) 2.166

B) 6.166

C) 3.166

D) 1.166

149. Which among the following is an insulator?

A) Mica

B) Copper

C) Silver

D) Aluminium

150. 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

B) 120 rpm

C) 140 rpm

D) 160 rpm

151. What is the density (ρ) in g/cm³ of an iron cube, if it weighs (W) 4.8 kg and volume (V) is 640 cm³?

A) 6.9 g/cm³

B) 7.2 g/cm³

C) 6.6 g/cm³

D) 7.5 g/cm³

152. How much watt second in 1 watt hour?

A) 2000 watt sec

B) 3600 watt sec

C) 4000 watt sec

D) 1000 watt sec

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

A) 78 mm

B) 88 mm

C) 68 mm

D) 98 mm

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

A) 886.82 cm²

B) 866.82 cm²

C) 876.82 cm²

D) 856.82 cm²

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

- A) Work
C) Acceleration

- B) Efficiency
D) Energy

C) 2.4

D) 10

156. Which is very good conductor?

- A) Cast iron
C) Steel

- B) Wrought iron
D) Copper

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

- A) Voltage
C) Current

- B) Resistance
D) Power

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

- A) 639 Joules
C) 649 Joules

- B) 669 Joules
D) 659 Joules

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

- A) 21 m^3
C) 31 m^3

- B) 11 m^3
D) 41 m^3

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

- A) 1 watt
C) 1 kilowatt

- B) 1 Kilowatt hour
D) 1 HP

161. What is the definition of ratio?

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

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

- A) Electric furnace
C) Blast furnace

- B) Cupola
D) Mild steel - Rever battery

163. 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
C) 3740 Joules

- B) 3720 Joules
D) 3750 Joules

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

- A) 1769.25 liters
C) 1766.25 liters

- B) 1768.25 liters
D) 1767.25 liters

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

A) 4

B) 5

166. Convert 0.456 decimal fraction into percentage? | 0.456 ದಶಮಾಂಶ ಭಾಗವನ್ನು ಶೇಕಡಾವಾರು ಆಗಿ ಪರಿವರ್ತಿಸಿ?

- A) 45.6%
C) 0.0456

- B) 0.0456%
D) 0.456%

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

- A) 1.2 W
C) 3 W

- B) 12 W
D) 10 W

168. Which is mineral insulator

- A) Porcelain
C) Mica

- B) Quartz
D) Glass

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

- A) 42
C) 12

- B) 18
D) 36

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

- A) 395 volts
C) 405 volts

- B) 400 volts
D) 390 volts

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

- A) Metre/minutes

- B) Metre/second²

- C) Metre/minutes²

- D) Metre/second

172. Convert decimal 0.000659 to fraction?

- A) (659/10000)
C) (659/1000000)

- B) (659/1000)
D) (659/100000)

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

- A) 21.26
C) 22.46

- B) 23.46
D) 22.26

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

- A) 25
C) 6

- B) 15
D) 10

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

- A) Density
C) Mass

- B) Specific gravity
D) Weight

176. Which is the unit electrical power?

A) Ampere
C) Watts

B) Ohms
D) Volts

A) Malleability
C) Ductility

B) Hardness
D) Toughness

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

A) 1962 Joules
C) 1942 Joules

B) 1972 Joules
D) 1952 Joules

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

A) Power
C) Resistance

B) Voltage
D) Current

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

A) 6
C) 2

B) 24
D) 18

180. What are fundamental units?

A) Length, Mass, Time
C) Length, Mass, Area

B) Length, Mass, Volume
D) Length, Pressure, Volume

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

182. Which insulating material is used for making switches?

A) Ebonite
C) Porcelain

B) PVC
D) Bakelite

183. Which is brittle metal?

A) Steel
C) Alloy steel

B) Mild steel
D) Cast iron

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

A) 13.99
C) 13.89

B) 13.69
D) 13.79

185. How many millimetres are there in 1 inch?

A) 25.4 mm
C) 2.45 mm

B) 24.5 mm
D) 2.54 mm

186. What is the formula for potential energy?

A) $mgh \times 2$ joule
C) mgh joule

B) $\frac{2}{3} mgh$ joule
D) $\frac{1}{2} mgh$ joule