WCS

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Q. ID: ITISKILL91188G

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Govt ITI Tagaduru

Answer Key

Duration: 30 Mins **Total Marks: 413** **Q.ID: ITISKILL91188G**

1. What is the mechanical advantage, if a load of 1000 kg is lifted by a simple machine and effort applied is 250 kg?

A) 8 B) 6
C) 3 D) 4

Answer: D) 4

2. Which is thermo plastic material?

A) Vinyl polymers B) Butyl rubber
C) Nylon D) Neoprene

Answer: A) Vinyl polymers

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

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

Answer: D) 625 Joules

4. What is the relative permittivity of rubber?

A) Between 12 and 14 B) Between 2 and 3
C) Between 8 and 10 D) Between 5 and 6

Answer: B) Between 2 and 3

5. What is the selling price, if the profit is 5% for a computer table bought at Rs.1150/- with Rs.50/- as a transport charge?

A) 1160 B) 1060
C) 1620 D) 1260

Answer: D) 1260

6. What is the main factor to be considered while preparing a detailed estimate?

A) Shape of material B) Location of material
C) Quantity, availability and transportation of materials D) Brand of the materials

Answer: C) Quantity, availability and transportation of materials

7. What is the centre of gravity of a right circular cone from its base?

A) h/4 B) h/3
C) h/2 D) h/5

Answer: A) h/4

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

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

Answer: A) High carbon steel

9. Which metal contains iron as a major content?

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

Answer: D) Ferrous metal

10. What is the square root of 529?

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

Answer: A) 23

11. What is the value of (a⁵)⁷?

A) a²1 B) a²²
C) a³⁵ D) a1²

Answer: C) a³⁵

12. Which is the expansion of a³ + b³?

A) (a+b) (a² + b² - ab) B) a³ - b³ + 3ab (a-b)
C) a³ + b³ + 3ab (a+b) D) (a-b) (a² + b² - ab)

Answer: A) (a+b) (a² + b² - ab)

13. What is the name of the structure formed, if a steel is heated for about 723 Degree C?

A) Cementide B) Ferrite
C) Austenite D) Martensite

Answer: C) Austenite

14. What is the value of adding (5x+2y), (4x - 7z) and (15z - 3y)?

A) 9x - y + 8z B) x - 9y + 8z
C) 9x + y - 8z D) x + 9y + 8z

Answer: A) 9x - y + 8z

15. Which machine converts mechanical energy into electrical energy?

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

Answer: D) Generator

16. Which insulator is used in over head lines?

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

Answer: B) Porcelain

17. Which IE rules are to be verified on completion of wiring on any new installation?

A) IE Rules, 1956
B) IE Rules, 1960
C) IE Rules, 1967
D) IE Rules, 1961

Answer: A) IE Rules, 1956

18. What is term called for 3 x linear expansion?

A) Co-efficient of cubical expansion
B) Co-efficient of friction
C) Co-efficient of superficial expansion
D) Co-efficient of linear expansion

Answer: A) Co-efficient of cubical expansion

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) 94.8 ohms
C) 96.8 ohms
D) 95.8 ohms

Answer: C) 96.8 ohms

20. What is the volume of mercury in cm3, if the mass (m) of mercury is 136 grams (g) and density (r) of mercury is 13.6 g/cm3?

A) 10.6 cm³
B) 136 cm³
C) 10.0 cm³
D) 13.6 cm³

Answer: C) 10.0 cm³

21. What is the other term of pocket reference in engineering works?

A) Good book
B) New book
C) Hand tool
D) Hand book

Answer: D) Hand book

22. Which is equal to electric power?

A) I²R watts
B) R²I watts
C) RI
D) IRA

Answer: A) I²R watts

23. What is the name of heat treatment process done to relieve strain and stress?

A) Tempering
B) Hardening
C) Normalising
D) Annealing

Answer: D) Annealing

24. Which is equal to (a^m)ⁿ?

A) a^{m-n}
B) a^{m/n}
C) a^{mn}
D) a^{m+n}

Answer: C) a^{mn}

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

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

Answer: D) 5 Amps

26. What is the value of x if 11x+4=37?

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

Answer: D) 3

27. Which one of the following geometrical shape's centre of gravity lies from its base is 1/3 of its height?

A) Rhombus
B) Square
C) Triangle
D) Cone

Answer: C) Triangle

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

A) 856.82 cm²
B) 866.82 cm²
C) 886.82 cm²
D) 876.82 cm²

Answer: D) 876.82 cm²

29. What is the value for specific heat of water

A) 1
B) 3
C) 4
D) 2

Answer: A) 1

30. Which type of levers is bell cranked lever?

A) Curved lever
B) 2nd order lever
C) 3rd order lever
D) 1st order lever

Answer: A) Curved lever

31. What is the safe stress if the ultimate stress of a material is 35 kg/mm² and factor of safety is 5?

A) 0.143
B) 0.7
C) 1.43
D) 7

Answer: D) 7

32. What is the term, if an article is purchased?

A) Selling price
B) Margin price
C) Cost price
D) Discount price

Answer: C) Cost price

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

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

Answer: C) Hardness

34. Which one is non-metal?

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

Answer: D) Graphite

35. How many millimetres are there in 1 inch?

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

Answer: A) 25.4 mm

36. Which kind of heat transmission takes places by up-ward flow?

A) Conduction
B) Radiation
C) Convection
D) Reflection

Answer: C) Convection

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

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

Answer: C) wb/m

38. What is called if the length of the solid expands when heated?

A) Cubical expansion
B) Superficial expansion
C) Linear expansion
D) Area expansion

Answer: C) Linear expansion

39. How many hours will take for a 100 watts bulb to consume 1 kwh energy?
 W = 1 Kwh
 P = 100 Watts
 t = _____Hours

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

Answer: D) 10 hours

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

A) 2 Pi r (h + r)
B) Pi r (h + r)
C) Pi rh
D) 2 Pi rh

Answer: A) 2 Pi r (h + r)

41. What is the diameter of the semicircle, if the circumference of the semicircle is 21.98 cm?

A) 8 cm
B) 7 cm
C) 8.55 cm
D) 7.55 cm

Answer: C) 8.55 cm

42. What is the voltage of the immersion heater?
P = 500 watts
 I = 2.27 Amps
 V = _____Volts

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

Answer: C) 220.3 volts

43. What describes the detailed specification for the item of work?

A) Tax, Transport, Overhead expenses
B) Maintenance, Stock, Cost
C) Colour
D) Quality, Quantity, Workmanship, Method of execution

Answer: D) Quality, Quantity, Workmanship, Method of execution

44. Which one is included in machining estimation sheet?

A) Raw material cost
B) Advertisement cost
C) Transport cost
D) Tax

Answer: A) Raw material cost

45. Which insulating material is most widely used in refrigerators?

A) Polyurethane
B) Thermocole
C) Cork sheet
D) Glass wool

Answer: A) Polyurethane

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

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

Answer: A) 0.15% to 0.25%

47. Which is mineral insulator

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

Answer: C) Mica

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

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

Answer: B) Non-ferrous metals

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

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

Answer: D) Mild steel

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

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

Answer: A) 0.185

51. What is the term, for the details of materials, brand name, grade of quality, rating of current and voltage etc.?

A) Raw materials
B) Drawing
C) Price catalogue
D) Specification of materials

Answer: D) Specification of materials

52. Which one is a poor heat insulator?

A) Glass
B) Cork
C) Saw dust
D) Rubber

Answer: A) Glass

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

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

Answer: B) 6

54. What is the unit of co-efficient of linear expansion?

A) Number / Degree C / meter length
B) Number / Degree C
C) Number / Degree C / cm length
D) Number / Degree C / mm length

Answer: B) Number / Degree C

55. Which alloy used in electric lamp as filament?

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

Answer: B) Tungsten

56. What is the total wattage in a room if 2 tube lights of 50W rating, 2 fans of 80W rating, 2 numbers of light points of 60W rating, one fan point of 60W rating and one 3 pin socket of 100W rating?

A) 340 W
B) 640 W
C) 440 W
D) 540 W

Answer: D) 540 W

57. Which one is the radiation method of heat transmission?

A) The heat from sun travels through the space
B) An iron rod is heated with one of its end and heat transmitted to other end
C) Cold water goes to the bottom from top while on heating the water
D) On heating gases, heat transmitted to surroundings

Answer: A) The heat from sun travels through the space

58. 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
B) 659 Joules
C) 669 Joules
D) 649 Joules

Answer: C) 669 Joules

59. Which is the example for statically induced emf?

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

Answer: C) Transformer

60. What is the efficiency of a simple screw jack having velocity ratio is 314.2 and mechanical advantage is 220?

A) 0.65
B) 0.75
C) 0.7
D) 0.6

Answer: C) 0.7

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

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

Answer: A) Current

62. What is a total cost?

A) Machining cost only
B) Raw materials cost and machining cost
C) Advertisement cost only
D) Raw material cost only

Answer: B) Raw materials cost and machining cost

63. What is the unit of speed?

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

Answer: C) Metre/second

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

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

Answer: B) (9/10)

65. 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

Answer: A) 8 m/sec

66. Which heat treatment process is done to refine the grain structure of the steel?

A) Hardening
B) Annealing
C) Normalising
D) Tempering

Answer: C) Normalising

67. Which type heat is the heat absorbed or given off by a substance without changing its physical state?

A) Specific heat
B) Latent heat of steam
C) Sensible heat
D) Latent heat

Answer: C) Sensible heat

68. What is the profit amount, if the i - phone cost price is Rs.50000/- and selling price is Rs.70000/-?

A) Rs. 50000/-
B) Rs. 10000/-
C) Rs. 20000/-
D) Rs. 2000/-

Answer: C) Rs. 20000/-

69. Which is brittle metal?

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

Answer: B) Cast iron

70. Which state of equilibrium's example is, A cone resting on its base?

A) Un-stable B) Bothe A and B
C) Stable D) Neutral

Answer: C) Stable

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

A) 26 cm² B) 36 cm²
C) 324 cm² D) 72 cm²

Answer: C) 324 cm²

72. Which state of equilibrium's example is A cone resting on its tip?

A) Horizontal B) Neutral
C) Stable D) Unstable

Answer: D) Unstable

73. Which order lever is claw hammer?

A) 1st order lever B) 3rd order lever
C) 2nd order lever D) Curved lever

Answer: A) 1st order lever

74. What is the value of x³+3y²x² if x=3, y=2?

A) 135 B) 54
C) 81 D) 63

Answer: A) 135

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

A) 3740 cm² B) 3755 cm²
C) 3750 cm² D) 3745 cm²

Answer: C) 3750 cm²

76. What cables are used for 132KV lines?

A) Extra high tension B) High tension
C) Extra super voltage D) Super tension

Answer: C) Extra super voltage

77. What is the boiling point of aluminium?

A) 2469 Degree C B) 660 Degree C
C) 2519 Degree C D) 1897 Degree C

Answer: C) 2519 Degree C

78. How much time is allowed normally in soaking zone for a 10mm thick metal piece while hardening?

A) 5 minutes B) 15 minutes
C) 10 minutes D) 20 minutes

Answer: A) 5 minutes

79. What is the value of 'X' if x - y = 6 and x + y = 8?

A) 6 B) 14
C) 7 D) 5

Answer: C) 7

80. Convert 45 Degree C (Centigrade) into Degree F (Fahrenheit)

A) 110 Degree F B) 112 Degree F
C) 111 Degree F D) 113 Degree F

Answer: D) 113 Degree F

81. What is the density (r) in g/cm3 of an iron cube, if it weighs (W) 4.8 kg and volume (V) is 640 cm,³?

A) 6.6 g/cm³ B) 7.2 g/cm³
C) 7.5 g/cm³ D) 6.9 g/cm³

Answer: C) 7.5 g/cm³

82. Which is the formula for a^m/ aⁿ

A) (a^m)ⁿ B) a^{m-n}
C) a^{mxn} D) a^{m+n}

Answer: B) a^{m-n}

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

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

Answer: D) Cobalt steel

84. What effort required to lift a load of 150 kg in a wheel and axle, if the velocity ratio is 2.5 and the efficiency of the machine is 75%?

A) 70 kg B) 90 kg
C) 100 kg D) 80 kg

Answer: D) 80 kg

85. Which type of heat transmission takes place through physical contact?

A) Conduction B) Reflection
C) Convection D) Radiation

Answer: A) Conduction

86. What is the co-efficient of linear expansion of a rod if it is found to be 100 m long at 20 Degree C and 100.14 m long at 100 Degree C?

A) 1.75 x 10-6 / Degree C B) 1.75 x 10-5 / Degree C
C) 1.75 x 10-7 / Degree C D) 1.75 x 10-4 / Degree C

Answer: B) 1.75 x 10-5 / Degree C

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

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

Answer: C) Density

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

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

Answer: B) 19.5

89. Which one is related to estimation of work?

A) Bill of material B) Hand book
C) Information table D) Packing

Answer: A) Bill of material

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

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

Answer: A) 1 watt

91. How many newtons for 1 kilogram?

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

Answer: B) 9.81 Newtons

92. What is the area of the circle if the radius is 10 cm?

A) 3.14 cm² B) 31.4 cm²
C) 30.4 cm² D) 314 cm²

Answer: D) 314 cm²

93. What is the area of the circle, if the circumference of the circle is 44cm?

A) 128 cm² B) 129 cm²
C) 154 cm² D) 130 cm²

Answer: C) 154 cm²

94. What is colour of a metal piece when heated to 250 Degree C while doing the tempering process?

A) Blue B) Brown
C) Purple D) Pale

Answer: B) Brown

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

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

Answer: A) 1847 c.c

96. What is the compounded annual interest, for a loan amount of Rs.80000/- at 10% per annum for a period of 2 years?

A) Rs.16800/- B) Rs.92400/-
C) Rs.96800/ D) Rs.94800/-

Answer: A) Rs.16800/-

97. What is the weight of the iron ball has volume of 250 cc and density 7.5 gm/cc?

A) 1875 gram B) 1750 gram
C) 1975 gram D) 1785 gram

Answer: A) 1875 gram

98. Which is the unit electrical power?

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

Answer: B) Watts

99. 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) 14 metre/sec² B) 10 metre/sec²
C) 12 metre/sec² D) 8 metre/sec²

Answer: C) 12 metre/sec²

100. What is the diameter of the circle, if the area of the circle is 78.5cm²?

A) 10 cm B) 5 cm
C) 5.5 cm D) 15 cm

Answer: A) 10 cm

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

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

Answer: D) 0.25% to 0.5%

102. What is the formula to find Profit %?

A) ((C.P)/(Profit))x100 B) ((S.P-C.P)/(Profit))x100
C) ((Profit)/(S.P))x100 D) ((Profit)/(C.P))x100

Answer: D) ((Profit)/(C.P))x100

103. Which is expanded form of a³-b³?

A) (a+b) (a² - b²- ab) B) (a-b) (a² - b²+ ab)
C) (a-b) (a² + b² + ab) D) (a-b) (a² - b² - ab)

Answer: C) (a-b) (a² + b² + ab)

104. What is equal to tan θ?

A) Adjacent Side/Hypotenuse
B) Adjacent side/Opposite side
C) Opposite Side/Hypotenuse
D) Opposite Side/Adjacent Side

Answer: D) Opposite Side/Adjacent Side

105. What is the melting point of aluminium?

A) 670 Degree C
B) 680 Degree C
C) 660 Degree C
D) 620 Degree C

Answer: C) 660 Degree C

106. What is the length of arc of a sector, whose perimeter is 64.8cm and radius is 12.4 cm?

A) 40.8 cm
B) 42 cm
C) 45 cm
D) 40 cm

Answer: D) 40 cm

107. What is the name called biggest chord of the circle?

A) Diagonal
B) Radius
C) Diameter
D) Arc

Answer: C) Diameter

108. What is the velocity ratio of a wheel and axle if the radii of wheel and axle are 375 mm and 75 mm respectively?

A) 4
B) 5
C) 3
D) 6

Answer: B) 5

109. Calculate the amount of heat required to raise the temperature of 85.5 gm of sand from 20 Degree C to 35 Degree C specific heat of sand = 0.1.

A) 125.28 Joules
B) 128.26 Joules
C) 128.25 Joules
D) 126.28 Joules

Answer: C) 128.25 Joules

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

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

Answer: B) Energy

111. What is the radius of the circle if the angle of sector is 90 Degree and the area of the circle is 196 cm²?

A) 15 cm
B) 14.95 cm
C) 15.77 cm
D) 14.85 cm

Answer: C) 15.77 cm

112. Which one is heat insulator?

A) Copper
B) Brass
C) Thermocole
D) Aluminium

Answer: C) Thermocole

113. Which is equal to sin θ?

A) Opposite Side/Hypotenuse
B) Hypotenuse/Opposite side
C) Adjacent Side/Hypotenuse
D) Hypotenuse/Adjacent side

Answer: A) Opposite Side/Hypotenuse

114. Which metal cannot be forged?

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

Answer: C) Cast iron

115. What is denoted as 'I'?

A) Interest
B) Year
C) Principal
D) Rate

Answer: A) Interest

116. What are fundamental units?

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

Answer: A) Length, Mass, Time

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

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

Answer: C) 1.65 metre

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

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

Answer: A) Grey cast iron

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

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

Answer: D) 36

120. What is the ratio between stress and strain?

A) Poisson's ratio
B) Youngs Modulus
C) Yield point
D) Factor of safety

Answer: B) Youngs Modulus

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

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

Answer: C) I = V/R

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

A) 4/3 Pi (R² - r²)h
B) Pi (R² - r²)h
C) Pi/3 (R² - r²) h
D) 2/3 Pi (R² - r²) h

Answer: B) Pi (R² - r²)h

123. What is the other term used for reference table?

A) Dictionary
B) Bibliography
C) Biography
D) Information Table

Answer: D) Information Table

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

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

Answer: B) Cupola

125. What is the distance of the load from the fulcrum called?

A) Effort arm
B) Effort
C) Power arm
D) Load arm

Answer: D) Load arm

126. What is the total labour charges for a particular wiring work completed in 2 days by one electrician and one helper.(Electrician @ ?800/day and helper @ Rs 400/day)

A) Rs. 2000
B) Rs. 1400
C) Rs. 2400
D) Rs. 3000

Answer: C) Rs. 2400

127. What is the centre of gravity of a sphere?

A) At the radius
B) On the circumference
C) At the diameter
D) At the centre

Answer: D) At the centre

128. What is the simple interest for the principal amount of Rs.100000 at 10% per annum for 1 year period?

A) Rs.5000/-
B) Rs.1000/-
C) Rs.10000/-
D) Rs.50000/-

Answer: C) Rs.10000/-

129. What is the value of 5x⁴ / 5x³ ?

A) 5x
B) 5x⁴/³
C) 5x²
D) x

Answer: D) x

130. Where the centre of gravity of a circle lies?

A) Any where on its diameter
B) At its centre
C) Any where on its radius
D) Any where on its circumference

Answer: B) At its centre

131. What is the ratio between lateral strain and longitudinal strain?

A) Young's modulus
B) Hooks law
C) Bulk modulus
D) Poisson's ratio

Answer: D) Poisson's ratio

132. Simplify: (17.49x5.2)/(6.5)

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

Answer: B) 13.99

133. What is the minimum permissible size of aluminium wire used in estimation?

A) 2.5 sq.mm
B) 5 sq.mm
C) 3.5 sq.mm
D) 1.5 sq.mm

Answer: D) 1.5 sq.mm

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

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

Answer: C) 05:01

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

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

Answer: D) Weight

136. What is the tensile strain if a force of 3.2 KN is applied to a bar of original length 2800 mm extends the bar by 0.5 mm?

A) 0.0001687
B) 0.0001867
C) 0.0001786
D) 0.0001968

Answer: C) 0.0001786

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

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

Answer: D) 735.5 watts

138. What is the area of the sector, whose diameter is 40 mm and angle is 120 Degree?

A) 418.66 mm²
B) 400.50 mm²
C) 415.5 mm²
D) 416.6 mm²

Answer: A) 418.66 mm²

139. What is the formual for induced emf?

A) BLV sinq volts
B) B²L sinq volts

C) BL sinq volts
D) B²V sinq volts

Answer: A) BLV sinq volts

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

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

Answer: C) 24 days

141. What is the compound interest on a principal of Rs.25000/- after 3 years at the rate of 12% per annum?

A) Rs.9720
B) Rs. 9000
C) Rs.10483.20
D) Rs.10123.20

Answer: D) Rs.10123.20

142. Which is example for second order lever?

A) Bottle opener
B) Common balance
C) A pair of scissors
D) Human forearm

Answer: A) Bottle opener

143. What is known for the temperature at which any solid melts into liquid?

A) Latent heat of fusion
B) Melting point
C) Latent heat of vaporisation
D) Boiling point

Answer: B) Melting point

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

A) 1 dyne
B) 10 Joules
C) 10 dynes
D) 1 Joule

Answer: D) 1 Joule

145. Which law states that at constant termperature the current passing through a closed circuit is directly proportional to the potential difference and inversely proportional to the resistance?

A) Ohm's law
B) Hooke's law
C) Lenz's law
D) Newton's law

Answer: A) Ohm's law

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

A) 157.1 cm²
B) 167.1 cm²
C) 147.1 cm²
D) 177.1 cm²

Answer: A) 157.1 cm²

147. Which force acts on crank shaft?

A) Torsional stress
B) Shear stress
C) Compressive stress
D) Tensile stress

Answer: A) Torsional stress

148. What is the value of ab if (a+b)²=36 (a-b)²=24?

A) 4
B) 6
C) 2
D) 3

Answer: D) 3

149. What is the name of the point at which all the weight of the body concentrated?

A) Initial point
B) Centre of gravity
C) Centroid
D) Central point

Answer: B) Centre of gravity

150. Which state of equilibrium's example is, A cone resting on its base?

A) Un-stable
B) Neutral
C) Bothe A and B
D) Stable

Answer: D) Stable

151. What is the boiling point of water?

A) 100 Degree C
B) 212 Degree C
C) 0 Degree C
D) 32 Degree C

Answer: A) 100 Degree C

152. What is the term used for maximum stress attained by a material before rupture?

A) Ultimate stress
B) Compressive stress
C) Working stress
D) Tensile stress

Answer: A) Ultimate stress

153. What is the formula for kinetic energy?

A) (1/2) mv joule
B) (2/3) mv² joule
C) (2/3) mv joule
D) (1/2) mv² joule

Answer: D) (1/2) mv² joule

154. Convert decimal 0.000659 to fraction?

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

Answer: D) (659/1000000)

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

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

Answer: B) 39.59 cm

156. What is the density of aluminium?

A) 5.7 g/cm³
B) 2.7 g/cm³
C) 4.7 g/cm³
D) 3.7 g/cm³

Answer: B) 2.7 g/cm³

157. What is the specific heat of the material if we require 510 calories to raise the temperature of 170 gm of material from 50 Degree C to 80 Degree C?

A) 1.11 B) 0.1
C) 1.1 D) 0.01

Answer: B) 0.1

158. What is the formula to find Loss %?

A) (Loss+100)/(S.P) B) (Lossx100)/(C.P)
C) (S.P)/(Loss+100) D) (CP)/(Lossx100)

Answer: B) (Lossx100)/(C.P)

159. How much heat is absorbed by a copper ingot weighing 400 Kg is heated from 40 Degree C to 72 Degree C for the purpose of forging? (sp.heat of copper is 0.09)

A) 1215 Kcal B) 1152 Kcal
C) 1521 Kcal D) 1251 Kcal

Answer: B) 1152 Kcal

160. What is the name of a booklet, the rates of various terms are indicated?

A) Price bank B) Price bunch
C) Price tag D) Price catalogue

Answer: D) Price catalogue

161. What is the formula for velocity?

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

Answer: B) Displacement/Time

162. What is the youngs modulus if a wire of 2m long, 0.8 mm2 in cross section increases its length by 1.6 mm on suspension of 8 kg weight from it?

A) 12.5 kg /mm² B) 1.25 kg/mm²
C) 12500 kg/mm² D) 125 kg/mm²

Answer: C) 12500 kg/mm²

163. Which force acts on rivets?

A) Compressive force B) Bending force
C) Shear force D) Tensile force

Answer: C) Shear force

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

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

Answer: A) 12 W

165. 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 96%
C) Cu 92% D) Cu 94%

Answer: D) Cu 94%

166. What force will be required to punch a hole of 10 mm dia in a 1 mm thick plate, if the allowable shear stress is 50N/mm²? (Pi = 22/7)

A) 1571.4 N B) 1577 N
C) 1575 N D) 1757 N

Answer: A) 1571.4 N

167. What is the expansion of (a+b+c)²?

A) a² + b²+ c²+ 2 (ab + bc + ca) B) a² + b² + c²- 2ab + 2bc + 2ca
C) a² + b² + c² + 2ab - 2bc + 2ca D) a² - b² - c² + 2ab + 2bc + 2ca

Answer: A) a² + b²+ c²+ 2 (ab + bc + ca)

168. What is the value of x if 13+x =20?

A) 7 B) 9
C) 13 D) 8

Answer: A) 7

169. What is the formula for acceleration?

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

Answer: A) Metre/second²

170. 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/sec² B) 0.40 m/sec²
C) 0.20 m/sec² D) 0.10 m/sec²

Answer: A) 0.30 m/sec²

171. What are the various stages of heat treatment?

A) Heating, Cooling and Quenching B) Heating, Soaking and Quenching
C) Quenching, Cooling and Heating D) Soaking, Quenching and Cooling

Answer: B) Heating, Soaking and Quenching

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

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

Answer: D) Scalar quantity

173. 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

174. What is the formula to find selling price (S.P) if there is a loss?

A) ((100+Profit %)/(100))xC.P
B) ((100)/(100+Profit %))xS.P
C) ((100)/(100-Loss %))xS.P
D) ((100-Loss %)/(100))xC.P

Answer: D) ((100-Loss %)/(100))xC.P

175. What is the radius of the circle, whose circumference is 440 cm?

A) 71.5 cm
B) 70 cm
C) 72.2 cm
D) 70.5 cm

Answer: B) 70 cm

176. What is the velocity ratio of a simple machine of a mass 120 kg is lifted to a height of 5 metres by a force of 60 kg moving 15 metre. Calculate velocity ratio?

A) 3
B) 2
C) 1
D) 4

Answer: A) 3

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

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

Answer: A) 17 ohms

178. Which is the example for dynamicallly induced Emf?

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

Answer: A) Generator

179. What is the formula for a^m x aⁿ?

A) a^{mn}
B) n.a^m
C) a^{m-n}
D) a^{m+n}

Answer: D) a^{m+n}

180. What is the length of arc of a sector whose radius is 3.6 cm and angle is 36 Degree?

A) 21.0 cm
B) 2.26 cm
C) 22.6 cm
D) 2.10 cm

Answer: B) 2.26 cm

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

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

Answer: D) 73.57 KJ

182. Which is a kind of surface hardening process?

A) Tempering
B) Cementide
C) Nitriding
D) Ferrite

Answer: C) Nitriding

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

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

Answer: B) Efficiency

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

A) 73.23 cm³
B) 73.33 cm³
C) 73.53 cm³
D) 73.43 cm³

Answer: C) 73.53 cm³

185. What is the process of heat treatment?

A) The process of heating to change the dimensions
B) The process of cooling to measure the dimensions
C) The process of heating and bending as per our requirement
D) The process of heating and cooling to change the structure and properties

Answer: D) The process of heating and cooling to change the structure and properties

186. How many degrees is equal to one radian?

A) (180)/(Pi)
B) (Pi)/(180)
C) (Pi)/(360)
D) (360)/(Pi)

Answer: A) (180)/(Pi)

187. How many ergs for 1 Joule?

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

Answer: D) 10^7 ergs

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

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

Answer: A) Vector quantity

189. 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

190. What is the simplified value of (3x + 15) / 5x + 25)

A) (3/5) B) (-5/3)
C) (-3/5) D) (5/3)

Answer: A) (3/5)

191. What is the x value for x² + 62 = 126?

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

Answer: C) 8

192. What is discount?

A) The reduction given to the selling price of a product B) Selling price is less than Cost price
C) Selling price + discount D) Selling price is greater than Cost price

Answer: A) The reduction given to the selling price of a product

193. Which one is the most reliable estimate?

A) Plinth area estimate B) Detailed estimate
C) Cube rate estimate D) Preliminary estimate

Answer: B) Detailed estimate

194. What is the circumference of a circle whose diameter is 7 cm?

A) 25 cm B) 21 cm
C) 22 cm D) 44 cm

Answer: C) 22 cm

195. What is the value of a²+b² if a+b=9 and ab = 20?

A) 121 B) (-121)
C) (-41) D) 41

Answer: D) 41

196. 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) 6.166
C) 2.166 D) 1.166

Answer: C) 2.166

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

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

Answer: B) Current

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

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

Answer: D) Plasticity

199. Convert - 273 Degree C (Centigrade) into kelvin scale?

A) 3 Degree K B) 1 Degree K
C) 0 Degree K D) 2 Degree K

Answer: C) 0 Degree K

200. Which symbol is used to express change in length?

A) e B) L
C) l D) delta l

Answer: D) delta l

201. What is the name of the region of a circle between any two point on the circumference?

A) Segment B) Arc
C) Chord D) Sector

Answer: A) Segment

202. Which hand book referred by machine engineer?

A) Mark standard B) Oxford Dictionary
C) Parry's cheorikal D) CRC

Answer: A) Mark standard

203. What is the term used for the method of calculating various quantities and expenditure on a particular job or process?

A) Plan B) Specification
C) Drawing D) Estimation

Answer: D) Estimation

204. What is the subtracted value of 3x - 4x² +2y² from 4y²-2x + 8x²?

A) 2y²- 5x + 12x² B) 2y² - 5x -12x²
C) 2y²+ 5x -12x² D) (-2y²-5x + 12x²)

Answer: A) 2y²- 5x + 12x²

205. Which standard schedule of rates to be considered for estimation?

A) Standard schedule of rates of the average of the last 10 years B) Standard schedule of rates of the last year
C) Standard schedule of rates of the current year D) Standard schedule of rates of the average of last 5 years

Answer: C) Standard schedule of rates of the current year

206. What is the weight force of a car has a mass of 800 kg?(Take g = 9.81m/sec)

A) 7848 Newton B) 7748 Newton
C) 7487 Newton D) 7847 Newton

Answer: A) 7848 Newton

207. What is the resistance?
 I = 11.5 Amps
 V = 380 Volts
 R = _____Ohms

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

Answer: C) 33 ohms

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

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

Answer: A) Elasticity

209. How much load is lifted if an effort of 25 kg is applied to a simple machine having velocity ratio of 4 and efficiency 75%?

A) 65 kg
B) 80 kg
C) 70 kg
D) 75 kg

Answer: D) 75 kg

210. How much watt second in 1 watt hour?

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

Answer: A) 3600 watt sec

211. What percentage of 80 is 20?

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

Answer: C) 0.25

212. What is the formula for (a-b)²?

A) a² - 2ab - b²
B) (-a² - 2ab - b²)
C) a²- 2ab + b²
D) a² + 2ab + b²

Answer: C) a²- 2ab + b²

213. What is the centre of gravity of a solid hemisphere from its base?

A) 3r/8
B) 3r/4
C) 4r/5
D) r/2

Answer: A) 3r/8

214. How much quantity of heat is required to raise the temperature of 300 grams of copper (sp.heat 0.092 cal/gram) from 25 Degree C to 75 Degree C in Kcal?

A) 138 Kcal
B) 207 Kcal
C) 2.07 Kcal
D) 1.38 Kcal

Answer: D) 1.38 Kcal

215. How the years is denoted in simple interest calculations?

A) P
B) I
C) n
D) r

Answer: C) n

216. What is the quantity of heat required to raise the temperature of 1 gram of water through 1 Degree Centigrade is called?

A) Centigrade heat unit
B) Specific heat
C) Colorie
D) British thermal unit

Answer: C) Colorie

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

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

Answer: B) 100.2 watts

218. What is the weight of a rectangular block of a cost iron of 250cm X 20cm X 8cm (density of cast iron is 7.8 gm/cm³)?

A) 312 kg
B) 525 kg
C) 372 kg
D) 410 kg

Answer: A) 312 kg

219. What is the compounded amount, if the principal of Rs.30000/- and interest earned at 7% per annum is Rs.4347?

A) Rs.32347/-
B) Rs.30347/-
C) Rs.33347/-
D) Rs.34347/-

Answer: D) Rs.34347/-

220. What is the voltage?
 R = 250 Ohms
 I = 0.44 Amps
 V = ____Volts

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

Answer: C) 110 Volts

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

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

Answer: A) 25 sq.cm

222. Which is example for first order lever?

A) Lime squeezer
B) A pair of scissors
C) A wheel barrow
D) Fire tongs

Answer: B) A pair of scissors

223. Which instrument is used to measure temperatures of red hot metals up to 3000 Degree C?

A) Alcohol thermometer
B) Thermoelectric pyrometer
C) Radiation pyrometer
D) Bimetal thermometer

Answer: C) Radiation pyrometer

224. What percentage of water absorbed by a good building stone?

A) Less than 20% B) Less than 5%
C) Less than 10% D) Less than 8%

Answer: B) Less than 5%

225. What is the formula for potential energy?

A) mgh joule B) 2/3 mgh joule
C) 1/2 mgh joule D) mgh² joule

Answer: A) mgh joule

226. Which law states that within elastic limit stress is directly proportional to strain?

A) Hooks law B) Joules law
C) Charles law D) Newtons law

Answer: A) Hooks law

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

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

Answer: C) Resistance

228. What is the principal amount deposited, if the maturity proceeds to an amount of Rs.25000/- and interest earned Rs.6000/-?

A) Rs.31000/- B) Rs.19000/-
C) Rs.25000/- D) Rs.20000/-

Answer: B) Rs.19000/-

229. Which authority publishes schedule of rates?

A) Partnership firm B) Individual
C) Corporate D) Government department

Answer: D) Government department

230. What is a under estimate?

A) An estimate perfectly matches with actual B) No work started as per estimate
C) An estimate is fell short of the actual estimate D) An estimate is exceeded the actual estimate

Answer: C) An estimate is fell short of the actual estimate

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

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

Answer: C) 88 sq.metre

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

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

Answer: C) 75 kg.m/sec

233. What is the unit for velocity?

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

Answer: C) Metre/second

234. What is called for the amount of heat required to raise the temperature of unit mass of a substance through 1 Degree C?

A) Specific heat B) Latent heat
C) Mixing of heat D) Sensible heat

Answer: A) Specific heat

235. What is the formula for speed?

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

Answer: A) Distance covered/Time

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

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

Answer: B) Metre/second²

237. Which among the following is an insulator?

A) Aluminium B) Silver
C) Mica D) Copper

Answer: C) Mica

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

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

Answer: C) 9.6 watts

239. What is the diameter of the circle, if the area of the circle is 706.5cm²?

A) 30 cm B) 29.5 cm
C) 30.5 cm D) 29 cm

Answer: A) 30 cm

240. Which one is the ratio of stress?

A) Load and diameter B) Load and time
C) Load and direction D) Load and area

Answer: D) Load and area

241. What are the three consecutive numbers if there sum is 42?

A) 14,15,16 B) 11,12,13
C) 13,14,15 D) 12,13,14

Answer: C) 13,14,15

242. How the profit / gain is expressed?

A) % B) Rs.
C) $ D) *

Answer: A) %

243. What is the matured amount for the deposit of Rs.5000/- and the simple interest earned for Rs.500/-?

A) Rs.6500 B) Rs.5500
C) Rs.6000 D) Rs.4500

Answer: B) Rs.5500

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

A) 20.93 cm² B) 20.89 cm²
C) 20.39 cm² D) 20.98 cm²

Answer: A) 20.93 cm²

245. What is the value in degree centigrade for 20 Degree F?

A) -6.37 Degree C B) -6.57 Degree C
C) -6.47 Degree C D) -6.67 Degree C

Answer: D) -6.67 Degree C

246. Which of the impurity in cast iron makes it hard and brittle?

A) Sulphur B) Silicon
C) Manganese D) Phosphorus

Answer: A) Sulphur

247. Which state of equilibrium's example is A cone resting on its tip?

A) Horizontal B) Unstable
C) Stable D) Neutral

Answer: B) Unstable

248. What is the ratio of change in length to original length?

A) Lateral strain B) Volumetric strain
C) Linear strain D) Poisson's ratio

Answer: C) Linear strain

249. Convert 52% into fraction?

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

Answer: B) (13/25)

250. What is the area of a circular surface if the radius is 14 cm?

A) 615.44 cm² B) 612.44 cm²
C) 614.5 cm² D) 612.25 cm²

Answer: A) 615.44 cm²

251. What is a hand book?

A) Model book of various works B) Type of reference work or other collection of instruction
C) Design book of latest works D) Dictionary of materials

Answer: B) Type of reference work or other collection of instruction

252. What is the tensile stress if a square rod of 10 mm side is tested for a tensile load of 1000 kg?

A) 10 kg /mm² B) 100 kg/mm²
C) 1000 kg/mm² D) 1 kg/mm²

Answer: A) 10 kg /mm²

253. Which instrument is used to measure heat?

A) Pyrometer B) Thermometer
C) Calorie meter D) Barometer

Answer: C) Calorie meter

254. At what temperature will Fahrenheit and centigrade thermometers give the same reading?

A) -41 Degree C B) -38 Degree C
C) -39 Degree C D) -40 Degree C

Answer: D) -40 Degree C

255. What is the ratio between the change in dimension to its original dimension of the substance?

A) Stress B) Strain
C) Poisson's ratio D) Factor of safety

Answer: B) Strain

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

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

Answer: A) Fusibility

257. 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) 0.59 m/sec² B) 0.69 m/sec²
C) 0.069 m/sec² D) 0.059 m/sec²

Answer: C) 0.069 m/sec²

258. What is the product of 0.003 x 0.5?

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

Answer: A) 0.0015

259. What is the centre of gravity of a sphere?

A) On the circumference B) At the centre
C) At the radius D) At the diameter

Answer: B) At the centre

260. What is the current?
 R = 50 Ohms
 220 Volts
 I =_____Amps

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

Answer: A) 4.4 Amps

261. What is the radius of a circle whose diameter is 44 cm?

A) 22 cm B) 20 cm
C) 23 cm D) 44 cm

Answer: A) 22 cm

262. 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) 3740 Joules D) 3720 Joules

Answer: A) 3750 Joules

263. What is the length of arc of a sector, whose radius is 15 cm and angle is 40 Degree?

A) 10.60 cm B) 10.4 cm
C) 9.8 cm D) 9.75 cm

Answer: B) 10.4 cm

264. What is the maximum percentage of stretch of its original length is allowable for elastic materials?

A) 400% B) 300%
C) 200% D) 100%

Answer: B) 300%

265. Divide (20/31)/(15/62)

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

Answer: D) 2(2/3)

266. Which affects the centre of gravity of the object?

A) Density B) Mass
C) Shape D) Weight

Answer: B) Mass

267. What is the equivalent pascal value for 1 bar?

A) 109 pascal B) 107 pascal
C) 103 pascal D) 105 pascal

Answer: D) 105 pascal

268. What is the length of arc of the sector whose radius is 15 cm and the intended angle is 30 Degree?

A) 6.85 cm B) 7.85 cm
C) 7.25 cm D) 6.75 cm

Answer: B) 7.85 cm

269. What is an over estimate?

A) When an estimate is fell short of the actual estimate B) No work started as per estimate
C) When an estimate perfectly matches the actual estimate D) When an estimate is exceeded to actual estimate

Answer: D) When an estimate is exceeded to actual estimate

270. What is the S.I unit of heat?

A) Centigrade heat unit B) British thermal unit
C) Calorie D) Joule

Answer: D) Joule

271. What is the formula for bulk modulus?

A) Volumetric stress/Volumetric strain B) Shear stress/Shear strain
C) Compressive stress/Compressive strain D) Tensile stress/Tensile strain

Answer: A) Volumetric stress/Volumetric strain

272. What is the centre of gravity of a semi circle of diameter 12 cm?

A) 2.54 cm B) 2.75 cm
C) 3.25 cm D) 2.24 cm

Answer: A) 2.54 cm

273. Convert 0.456 decimal fraction into percentage?

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

Answer: C) 45.6

274. What is the melting point of mercury?

A) -357 Degree C B) -209 Degree C
C) -38.72 Degree C D) -7.1 Degree C

Answer: C) -38.72 Degree C

275. 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

Answer: D) 36 km/hour

276. What is the total cost of Air-conditioners installed in a college, 40 class room-each 1 Air-conditioner, Computer lab 5 Air- conditioners and conference hall 5 Air-conditioners (Cost of one air conditioner Rs.30000/- including installation)?

A) Rs. 12 lakhs
B) Rs.10 lakhs
C) Rs. 15 lakhs
D) Rs. 20 lakhs

Answer: C) Rs. 15 lakhs

277. Which process produce equilibrium conditions?

A) Annealing and Normalising
B) Normalising and Tempering
C) Normalising and Tempering
D) Annealing and Hardening

Answer: A) Annealing and Normalising

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

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

Answer: B) 1766.25 liters

279. What does EMF stands for?

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

Answer: C) Electro Motive Force

280. What is the cost price if the product is sold at Rs. 572 with a profit of Rs. 72?

A) Rs. 1000
B) Rs. 644
C) Rs. 500
D) Rs. 472

Answer: C) Rs. 500

281. Which one of the following geometrical shapes centre of gravity lies from its base is 1/3 of its height?

A) Rhombus
B) Cone
C) Triangle
D) Square

Answer: C) Triangle

282. What is the interest earned, if the principal is for Rs.12500/- maturity becomes to a amount of Rs.17500/-?

A) Rs.5500
B) Rs.5000
C) Rs.25000
D) Rs.30000

Answer: B) Rs.5000

283. 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) 0.25 metre
D) 0.23 metre

Answer: C) 0.25 metre

284. What is the multiplication value of 5a²b x 8a⁵b³?

A) 40a⁴b⁷
B) 40a³b²
C) 40a⁷b⁴
D) 40a²b³

Answer: C) 40a⁷b⁴

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

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

Answer: A) 746 watts

286. What is the value of (6³) / ((-3)³) ?

A) 27
B) (-8)
C) 8
D) (-27)

Answer: B) (-8)

287. 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) 2.448
C) 2.948 kg
D) 2.848 kg

Answer: D) 2.848 kg

288. What is the improper fraction for the given mixed fraction ? 7 x (3/7)

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

Answer: B) (52/7)

289. What is the ratio of shear stress to shear strain?

A) Modulus of elasticity
B) Modulus of rigidity
C) Bulk modulus
D) Yield point

Answer: B) Modulus of rigidity

290. Who prepares the cost of estimation?

A) Draughts man
B) Quality Inspector
C) Operator
D) Estimator

Answer: D) Estimator

291. What is the area of the semicircle, if the diameter is 14 cm?

A) 75.06 cm²
B) 70 cm²
C) 86.93 cm²
D) 76.93 cm²

Answer: D) 76.93 cm²

292. What is the value of 1 / a⁻⁵?

A) (-5a)
B) a⁵
C) a⁻⁵
D) 5a

Answer: B) a⁵

293. What is called the ratio between the density of a

substances density of water at 4 Degree Centigrade?

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

Answer: C) Specific gravity

294. What is the ore of aluminium?

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

Answer: A) Bauxite

295. 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 104 kg meter
B) 12 x 105 kg meter
C) 12 x 107 kg meter
D) 12 x 106 kg meter

Answer: B) 12 x 105 kg meter

296. Which is elastic material?

A) Celluloid
B) Polystyrenes
C) Polycarbonates
D) Nylon

Answer: D) Nylon

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

A) 6200 m³
B) 5900 m³
C) 6100 m³
D) 6000 m³

Answer: D) 6000 m³

298. What is the maturity amount if Rs.20000 is deposited at 5% compound interest per annum for 2 years?

A) Rs.22000
B) Rs.22500
C) Rs.25000
D) Rs.22050

Answer: D) Rs.22050

299. What is the change in length per unit original length per degree rise in temperature is called?

A) Co-efficient of friction
B) Co-efficient of linear expansion
C) Co-efficient of cubical expansion
D) Co-efficient of superficial expansion

Answer: B) Co-efficient of linear expansion

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

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

Answer: A) Silicon

301. What is the value of a x a² x a³ x a⁴?

A) a⁹
B) a¹⁰
C) a⁸
D) a⁷

Answer: B) a¹⁰

302. What is the use of engineering drawing?

A) For increasing the cost
B) For estimation of material and execution of work
C) For colourful appearance
D) For reducing the cost

Answer: B) For estimation of material and execution of work

303. How the 'Principal' is denoted in simple interest calculation?

A) 'I'
B) 'n'
C) 'P'
D) 'R'

Answer: C) 'P'

304. Which specification is other than general specification?

A) Detailed specification
B) Main specification
C) Brief specification
D) Bulk specification

Answer: A) Detailed specification

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

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

Answer: B) Di-electric strength

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

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

Answer: C) 88 mm

307. What is the work done in unit time?

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

Answer: B) Power

308. Which is the suitable nitriding process for all alloyed and unalloyed steels?

A) Gas nitriding
B) Nitriding in salt-bath
C) Silver nitriding
D) Nitriding in Quenching tank

Answer: B) Nitriding in salt-bath

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

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

Answer: B) 76 cm

310. What is the freezing point of water in kelvin scale (K)?

A) 303 Degree K
B) 273 Degree K
C) 313 Degree K
D) 373 Degree K

Answer: B) 273 Degree K

311. How much is 8% of 40 kg?

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

Answer: A) 3.2 kg

312. What is the value of x, if 3 (2x - 4) = -4x + 28 ?

A) 8
B) 6
C) 4
D) 12

Answer: C) 4

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

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

Answer: A) Invar steel

314. What is the diameter of the circle, if the circumference is 31.4 cm?

A) 8 cm
B) 8.5 cm
C) 5 cm
D) 10 cm

Answer: D) 10 cm

315. What is the interest earned, if the principal is Rs.12000/- becomes to an amount of Rs.15600/-?

A) Rs.5600
B) Rs.4600
C) Rs.2600
D) Rs.3600

Answer: D) Rs.3600

316. What is the cost price (C.P) formula if there is a profit?

A) ((100+Profit %)/(100))xC.P
B) ((100)/(100+Profit %))xS.P
C) ((100)/(100-Loss %))xS.P
D) ((100-Loss %)/(100))xC.P

Answer: B) ((100)/(100+Profit %))xS.P

317. Which is the unit of resistance?

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

Answer: C) Ohm

318. What is the boiling point of mercury?

A) 759 Degree C
B) 767 Degree C
C) 357 Degree C
D) 280 Degree C

Answer: C) 357 Degree C

319. What denotes letter M in MKS system?

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

Answer: B) Meter

320. What is the difference between the simple and the compound interest amount at 5% per annum for 2 years on a principal of Rs.20000/-?

A) Rs.55
B) Rs.5
C) Rs.25
D) Rs.50

Answer: D) Rs.50

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

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

Answer: C) Blast furnace

322. What is called for the materials that restricts heat flow by radiation, conduction and convection?

A) Conductors
B) Insulators
C) Non-ferrous
D) Ferrous

Answer: B) Insulators

323. What is a profit?

A) Cost price + Selling price
B) Selling price - Cost price
C) Cost price - Selling price
D) Selling price + Cost price

Answer: B) Selling price - Cost price

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

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

Answer: C) 0.50% to 1.50%

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

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

Answer: A) Fundamental and derived

326. 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

Answer: A) Ductility

327. What is the value of any number raised to the power of 0?

A) (-1)
B) 0
C) 1
D) Alpha (?)

Answer: C) 1

328. What is the unit of strain?

A) Newton/metre² B) No unit

C) Kg/cm² D) Metre

Answer: B) No unit

329. What is the value of x if (x + 2) / 2 = 19?

A) 35 B) 33

C) 38 D) 36

Answer: D) 36

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

A) 31 m³ B) 21 m³

C) 11 m³ D) 41 m³

Answer: B) 21 m³

331. What is the expanded form of S.P?

A) Selected Price B) Super Price

C) Selling Price D) Special Price

Answer: C) Selling Price

332. Which affects the centre of gravity of the object

A) Density B) Weight

C) Shape D) Mass

Answer: D) Mass

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

A) 2030 watts B) 2020 watts

C) 2010 watts D) 2000 watts

Answer: D) 2000 watts

334. What is the value of 12x³y² / 4x²y?

A) 16xy B) (-3xy)

C) 8xy D) 3xy

Answer: D) 3xy

335. What is the total estimation cost for making the component of 8 drilled hole dia 10 mm and 4 Numbers of M6 taps in the plate, if Rs.8/- per drilled holes and Rs.12 per drill and tap?

A) Rs.100 B) Rs.102

C) Rs.110 D) Rs.112

Answer: D) Rs.112

336. Which is example for third order lever?

A) A pair of scissors B) Common balance

C) Forceps D) Lime squeezer

Answer: C) Forceps

337. What is the radius of the semicircle, if the circumference of the semicircle is 28.26 cm?

A) 8.75 cm B) 6.49 cm

C) 5.49 cm D) 8.5 cm

Answer: C) 5.49 cm

338. What is the height of the wall where the ladder touches the wall if the ladder is 2.5 m long makes an angle of 60 Degree with the ground?

A) 2.165 m B) 4.43 m

C) 4.13 m D) 4.23 m

Answer: A) 2.165 m

339. What is the name of the heat treatment process, where the metal is heated and quenched in water or oil?

A) Tempering B) Annealing

C) Normalising and Tempering D) Hardening

Answer: D) Hardening

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

A) Body at motion B) Velocity

C) Speed D) Body at rest

Answer: A) Body at motion

341. What is the centre of gravity of a rectangular body?

A) Shorter side of rectangle B) At the corners

C) Longer side of rectangle D) At the point of intersection of its diagonals

Answer: D) At the point of intersection of its diagonals

342. What is the total cost to assemble 10 personal computer systems, spares cost as given for one system: 1 TB hard disc Rs.4500/-, Intel i3 mother board Rs.7000/-, SMPS Rs.2500/-, monitor Rs.6000/-, keyboard Rs.1000/-, other material cost (Switches, USB, Cabl

A) Rs.275000/- B) Rs.265000/-

C) Rs.250000/- D) Rs.225000/-

Answer: A) Rs.275000/-

343. What is the SI unit of pressure?

A) Pascal B) Joule

C) Bar D) Newton

Answer: A) Pascal

344. Which is the short form of profit and loss statement?

A) PR & LS B) PRO & LOS

C) P & L D) L & P

Answer: C) P & L

345. Which is very good conductor?

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

Answer: D) Copper

346. How much quantity of heat is required?
 m = 120 litres
 t1 = 20 Degree C
 t2 = 85 Degree C
 S = 4.2
 Q = _____ KJ

A) 32780 KJ
B) 32760 KJ
C) 32770 KJ
D) 32750 KJ

Answer: B) 32760 KJ

347. What is the definition of ratio?

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

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

348. What is the square root of 0.017?

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

Answer: C) 0.13

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

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

Answer: B) 25 mm

350. 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 240
C) Rs 220
D) Rs 260

Answer: B) Rs 240

351. What is the expanded form of (a+b)²?

A) a² - 2ab + b²
B) (-a² - 2ab + b²)
C) a² + 2ab - b²
D) a² + 2ab + b²

Answer: D) a² + 2ab + b²

352. What is the angle of elevation of the top of a light house of 15 m height seen at a point 15 m away from the base?

A) 45 Degree
B) 60 Degree
C) 30 Degree
D) 90 Degree

Answer: A) 45 Degree

353. What is the centre of gravity of a rectangular body?

A) At the corners
B) Longer side of rectangle
C) Shorter side of rectangle
D) At the point of intersection of its diagonals

Answer: D) At the point of intersection of its diagonals

354. What is the purpose of tempering a steel?

A) To remove the ductility
B) To increase the brittleness
C) To increase the hardness
D) To reduce the brittleness

Answer: D) To reduce the brittleness

355. Which insulating material is used for making switches?

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

Answer: A) Bakelite

356. What is the total cost of painting of a class room including ceiling, if the size of length is 6m, breadth is 5m and height is 4m. (Painting + labour cost Rs.150/- per sq.m)

A) Rs.18700/-
B) Rs.17700/-
C) Rs.16700/-
D) Rs.15000/-

Answer: B) Rs.17700/-

357. What is the minimum permissible area of conductor (U/G cable) for three and half cores cable?

A) 5 sq.mm
B) 100 sq.mm
C) 50 sq.mm
D) 25 sq.mm

Answer: C) 50 sq.mm

358. Where the centre of gravity of a circle lies?

A) Any where on its radius
B) At its centre
C) Any where on its diameter
D) Any where on its circumference

Answer: B) At its centre

359. Which refers the temperature?

A) It is measured by calorie meter
B) It tells the state of heat
C) It is a form of energy
D) It tells specifie heat of substance

Answer: B) It tells the state of heat

360. What is the estimation of milling cost of a rectangular block size 100 X 80 X60 mm, if cost of the milling is Rs.2/sq.cm?

A) Rs.960/-
B) Rs.572/-
C) Rs.752/-
D) Rs.652/-

Answer: C) Rs.752/-

361. 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) 140 rpm
B) 160 rpm
C) 120 rpm
D) 180 rpm

Answer: D) 180 rpm

362. What is the ratio of force (or) thrust per unit area?

A) Energy
B) Pressure
C) Power
D) Work

Answer: B) Pressure

363. Which one has the highest thermal conductivity?

A) Water
B) Melting ice
C) Solid ice
D) Steam

Answer: C) Solid ice

364. What is the centre of gravity of a solid hemisphere from its base?

A) 4r/5
B) r/2
C) 3r/8
D) 3r/4

Answer: C) 3r/8

365. Which cast iron cannot be welded?

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

Answer: A) White cast iron

366. What is the boiling point of water in fahrenheit scale?

A) 100 Degree F
B) 112 Degree F
C) 212 Degree F
D) 180 Degree F

Answer: C) 212 Degree F

367. What is equal to cos θ?

A) Opposite side/Hypotenuse
B) Hypotenuse/Opposite Side
C) Adjacent Side/Hypotenuse
D) Hypotenuse/Adjacent Side

Answer: C) Adjacent Side/Hypotenuse

368. 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

369. 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

370. What is the selling price if the cost price is Rs.7282/- with a profit of Rs.208?

A) Rs.7074
B) Rs.7698
C) Rs.7290
D) Rs.7490

Answer: D) Rs.7490

371. What is the total construction cost of a house construction area of 3000 sq.ft. (cost of construction Rs.2000/- per sq.ft including material and labour)?

A) Rs.6,00,000
B) Rs.60,00,000
C) Rs.6,000,000
D) Rs.30,000,000

Answer: B) Rs.60,00,000

372. Which is the unit of current?

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

Answer: C) Ampere

373. What is the centre of gravity of a right circular cone from its base?

A) h/2
B) h/3
C) h/5
D) h/4

Answer: D) h/4

374. What is the height of the building if a ladder at 45 Degree touches the building placed 16 m from the base of the building?

A) 18 m
B) 15 m
C) 17 m
D) 16 m

Answer: D) 16 m

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

A) 638 cm²
B) 630 cm²
C) 628 cm²
D) 620 cm²

Answer: C) 628 cm²

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

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

Answer: C) 1962.5 cm²

377. 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) 1942 Joules
C) 1972 Joules
D) 1962 Joules

Answer: D) 1962 Joules

378. What are the various types of heat treatment processes?

A) Tempering, Cooling, Packing and Solling
B) Annealing, Normalising, Hardening and Tempering
C) Normalising, Heating, Cooling and Painting
D) Hardening, Soaking, Painting and Packing

Answer: B) Annealing, Normalising, Hardening and Tempering

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

A) 47 cm² B) 57 cm²
C) 37 cm² D) 27 cm²

Answer: A) 47 cm²

380. Wha is the mass if the density of a body is 7.6 g/cm³ and its volume is 25 cm³?

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

Answer: A) 190 grams

381. What is the value of x, if x*(120) = 960?

A) 7 B) 8
C) 10 D) 6

Answer: B) 8

382. What is the ratio between ultimate stress to working stress?

A) Factor of safety B) Young's modulus
C) Modulus of rigidity D) Bulk modulus

Answer: A) Factor of safety

383. What is the name of fixed or supporting point of a lever?

A) Load B) Effort
C) Fulcrum D) Mechanical advantage

Answer: C) Fulcrum

384. What is the value of x²-y² if (x+y) = 9, (x - y) = 4?

A) 13 B) 46
C) 65 D) 36

Answer: D) 36

385. Which process steel is heated in a carbonaceous atmosphere for the penetration of carbon?

A) Nitriding B) Case hardening
C) Induction hardening D) Carburising

Answer: D) Carburising

386. What is the value of 14x+3y+25x+2y?

A) 44xy B) 17x + 27y
C) 16x + 28y D) 39x + 5y

Answer: D) 39x + 5y

387. Which one of the following is not a property of heat insulating material?

A) Ductility B) Low conductivity
C) Resistance to fire D) Less moisture absorption

Answer: A) Ductility

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

A) 80 cm² B) 90 cm²
C) 75 cm² D) 85 cm²

Answer: A) 80 cm²

389. What is the value of tan θ if sin θ = 4/5 ?

A) (4/5) B) (5/3)
C) (3/4) D) (4/3)

Answer: D) (4/3)

390. What is the ratio between the distance moved by the effort to the distance moved by the load?

A) Mechanical advantage B) Velocity ratio
C) Efficiency D) Fulcrum

Answer: B) Velocity ratio

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

A) 1436 cm³ B) 1346 cm³
C) 1636 cm³ D) 1463 cm³

Answer: A) 1436 cm³

392. What is the centre of gravity of a semi circle of diameter 12 cm?

A) 2.24 cm B) 3.25 cm
C) 2.54 cm D) 2.75 cm

Answer: C) 2.54 cm

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

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

Answer: A) 1440 m²

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

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

Answer: C) 330 mm²

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

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

Answer: C) Ductility

396. What is the maximum temperature that can be measured by mercury thermometer?

A) 300 Degree C B) 200 Degree C
C) 400 Degree C D) 100 Degree C

Answer: A) 300 Degree C

397. What is the name of the point at which all the weight of the body concentrated?

A) Centre of gravity
B) Centroid
C) Central point
D) Initial point

Answer: A) Centre of gravity

398. Which is equal to (a+b)²-(a-b)²

A) 3ab
B) 4ab
C) 5ab
D) 2ab

Answer: B) 4ab

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

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

Answer: D) Mass

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

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

Answer: C) 23.46

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

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

Answer: C) Body at rest

402. Which is thermosetting plastic?

A) Melamine resins
B) Polystyrenes
C) Celluloid
D) Vinyl polymers

Answer: A) Melamine resins

403. 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) 405 volts
D) 390 volts

Answer: A) 400 volts

404. What is the profit % if the cost price of 16 bolts is equal to the selling price of 12 bolts?

A) 13.33
B) 43.33
C) 33.33
D) 23.33

Answer: C) 33.33

405. How much strain is developed in an iron rod of 1 metre length gets elongated by 1 cm, if a force of 100 kg is applied at one end?

A) 0.0001
B) 0.001
C) 0.1
D) 0.01

Answer: D) 0.01

406. What is the area of the circle, whose diameter is 50 cm?

A) 1950 cm²
B) 1960 cm²
C) 1962.5 cm²
D) 1900 cm²

Answer: C) 1962.5 cm²

407. What is the area of the sector, if the diameter is 12 cm and the angle is 60 Degree?

A) 18.0 cm²
B) 19.00 cm²
C) 18.84 cm²
D) 17.75 cm²

Answer: C) 18.84 cm²

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

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

Answer: C) 20 m

409. What is the ratio of ultimate load to area of original cross section?

A) Ultimate stress
B) Youngs modulus
C) Factor of safety
D) Yield point

Answer: A) Ultimate stress

410. What is the value of 625⁰?

A) 25
B) 1
C) 0
D) 525

Answer: B) 1

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

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

Answer: A) 2.4

412. What is term used for 2 x linear expansion?

A) Co-efficient of cubical expansion
B) Co-efficient of linear expansion
C) Co-efficient of friction
D) Co-efficient of superficial expansion

Answer: D) Co-efficient of superficial expansion

413. What is the mass in gram, if a force of 15 dyres acting on a mass m producing an acceleration of 2.5 cm/sec²?

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

Answer: D) 6 grams