ITI Quiz - 11-Mar-2026 11:17 AM

Q. ID: ITISKILL2102UB

Dr. J. J. Magdum ITI college sambhajipur

March 2026 Question Paper

Duration: 90 Mins **Total Marks: 106** **ID: ITISKILL2102UB**

Student Name: _____ Roll No: _____

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

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

2. Which is brittle metal?

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

3. What does EMF stands for?

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

4. How much watt second in 1 watt hour?

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

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

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

6. What is the formula for speed?

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

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

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

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

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

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

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

10. 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) 95.8 ohms
C) 96.8 ohms D) 94.8 ohms

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

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

12. 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) 6.9 g/cm³
C) 7.5 g/cm³ D) 7.2 g/cm³

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

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

14. Which is the example for dynamicallly induced Emf?

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

15. Which is the example for statically induced emf?

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

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

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

17. What is the formula for velocity?

A) Distance covered/Time B) Displacement/Time

C) Change of momentum/Time
D) Change in velocity/Time

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

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

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

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

20. What is the power required?
 I = 0.455 Amps
 R = 484 Ohms
 P = _____Watts

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

21. Which is the unit of current?

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

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

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

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

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

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

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

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

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

26. What is the unit of speed?

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

27. Which is the unit of resistance?

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

28. Which among the following is an insulator?

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

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

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

30. What is the formual for induced emf?

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

31. Which metal cannot be forged?

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

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

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

33. 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) 2/3 Pi (R² - r²) h
C) Pi/3 (R² - r²) h
D) Pi (R² - r²)h

34. Which one is non-metal?

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

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

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

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

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

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

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

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

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

39. What is the density of aluminium?

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

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

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

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

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

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

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

43. Which is mineral insulator

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

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

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

45. 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

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

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

47. 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) 13.6 cm³ D) 10.0 cm³

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

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

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

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

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

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

51. Which is very good conductor?

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

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

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

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

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

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

A) 41 m³ B) 31 m³
C) 21 m³ D) 11 m³

55. Which insulator is used in over head lines?

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

56. Which law states about electromagnetic induction?

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

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

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

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

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

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

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

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

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

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

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

62. Which is the unit electrical power?

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

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

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

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

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

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

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

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

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

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

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

68. Which machine converts mechanical energy into electrical energy?

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

69. Which alloy used in electric lamp as filament?

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

70. 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) Brittleness
D) Malleability

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

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

72. Which is equal to electric power?

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

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

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

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

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

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

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

76. 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

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

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

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

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

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

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

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

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

81. 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) 7 grams
B) 9 grams
C) 6 grams
D) 8 grams

82. 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

83. 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) 73.43 cm³
D) 73.53 cm³

84. Which metal contains iron as a major content?

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

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

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

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

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

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

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

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

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

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

90. What is the voltage?
 R = 250 Ohms
 I = 0.44 Amps
 V = _____Volts

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

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

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

92. What is the ore of aluminium?

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

93. Which insulating material is used for making switches?

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

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

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

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

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

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

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

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

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

98. 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

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

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

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

A) 1540 m²
B) 1340 m²

C) 1640 m² D) 1440 m²

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

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

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

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

103. What metals contained in brass alloy?

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

104. Which cast iron cannot be welded?

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

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

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

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

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