

Student: Shashank u salian

Score: 85/90 (94.44%)

Code: 4124

1. Which machine converts mechanical energy into electrical energy?

- A) Battery
 B) **Generator (Correct)**
 C) Heater
 D) Iron box

2. Which is the unit of current?

- A) **Ampere (Correct)**
 B) Volt
 C) Ohm
 D) Watt

3. Which is the unit of resistance?

- A) Ampere
 B) Volt
 C) **Ohm (Correct)**
 D) Watt

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

- A) Voltage
 B) **Current (Correct)**
 C) Resistance
 D) Power

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

- A) Current
 B) Voltage
 C) **Resistance (Correct)**
 D) EMF

6. Which is very good conductor?

- A) **Copper (Correct)**
 B) Cast iron
 C) Wrought iron
 D) Steel

7. Which is mineral insulator

- A) Glass
 B) Quartz
 C) **Mica (Correct)**
 D) Porcelain

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

- A) 11 ohms
 B) 7 ohm
 C) **17 ohms (Correct)**
 D) 1/17 ohms

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

- A) 10
 B) **2.4 (Correct)**
 C) 5
 D) 4

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

- A) **Current (Correct)**
 B) Voltage

C) Resistance

D) Power

11. 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) **Ohm's law (Correct)**
 B) Lenz's law
 C) Newton's law
 D) Hooke's law

12. 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 (Correct)**
 D) 43 ohms

13. What is the current?

$R = 50 \text{ Ohms}$

220 Volts

$I = \text{_____ Amps}$

- A) 4.1 Amps
 B) 4.2 Amps
 C) 4.3 Amps
 D) **4.4 Amps (Correct)**

14. What is the voltage?

$R = 250 \text{ Ohms}$

$I = 0.44 \text{ Amps}$

$V = \text{_____ Volts}$

- A) 100 Volts
 B) 105 Volts
 C) 108 Volts
 D) **110 Volts (Correct)**

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

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

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

- A) **12 W**
 B) 10 W (Incorrect)
 C) 3 W
 D) 1.2 W

- A) 10 hours (Correct)** B) 12 hours
C) 18 hours D) 24 hours
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35. Which one is non-metal?
A) Mercury B) **Graphite (Correct)**
C) Brass D) Iron
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36. Which metal contains iron as a major content?
A) Brass metal B) Bronze metal
C) Zinc D) **Ferrous metal (Correct)**
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37. What is the name of the metal which do not contain iron?
A) Ferrous metals B) **Non-ferrous metals (Correct)**
C) Insulating metals D) Non-Insulating metals
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38. Which one of the following properties is the mechanical properties of metal?
A) Fusibility B) **Ductility (Correct)**
C) Corrosion D) Structure
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39. Which is brittle metal?
A) **Cast iron (Correct)** B) Steel
C) Mild steel D) Alloy steel
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40. Which mechanical property of a metal offers resistance to elastic deformation in a cutting tool?
A) Ductility B) Malleability
C) **Hardness (Correct)** D) Toughness
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41. Which property of material enables to formation of permanent deformation without fracture?
A) Elasticity B) **Plasticity (Correct)**
C) Ductility D) Brittleness
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42. Which property of metal has its power of returning to its original shape after the applied force is released?
A) Malleability B) Tenacity
C) **Elasticity (Correct)** D) Plasticity
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43. Which property of a metal possessed by it melts when heat is applied?
A) Conductivity B) Malleability
C) **Fusibility (Correct)** D) Tenacity
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44. Which alloy used in electric lamp as filament?
A) Cobalt B) Vanadium
C) **Tungsten (Correct)** D) Silicon
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45. What metals contained in brass alloy?
A) Copper and aluminium B) Copper and lead
C) **Copper and zinc (Correct)** D) Copper and tin
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46. Which cast iron cannot be welded?
A) Grey cast iron B) **White cast iron (Correct)**
C) Malleable cast iron D) Nodular cast iron
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47. Which metal cannot be forged?
A) Alloy steel B) Mild steel (Incorrect)
C) Steel D) **Cast iron**
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48. Which metal is widely used for making casting of machinery parts?
A) **Grey cast iron (Correct)** B) White cast iron
C) Malleable cast iron D) Wrought iron
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49. Which furnace is used to get pig iron from iron ore?
A) Mild steel - Rever battery B) Electric furnace
C) **Blast furnace (Correct)** D) Cupola
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50. What is the name of furnace to obtained cast iron?
A) **Cupola (Correct)** B) Mild steel - Blast furnace
C) Steel - Rever battery D) Alloy metal - Electric furnace
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51. What is the other name of low carbon steel?
A) Low alloy steel B) High alloy steel (Incorrect)
C) High speed steel D) **Mild steel**
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52. What is the ore of aluminium?
A) Hematite B) Mallatite
C) **Bauxite (Correct)** D) Lemonite
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53. Which property of a metal enables it by which it can be drawn out into wires under tension without rupture?
A) **Ductility** B) Malleability
C) Hardness D) Brittleness (Incorrect)
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54. Which among the following is an insulator?
A) Copper B) Aluminium
C) Silver D) **Mica (Correct)**
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55. Which rubber is used as insulator for power cables and control wires?
A) Butyl B) Hypalone
C) **Silicon (Correct)** D) Nitrite butadiene

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

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

57. Which insulator is used in over head lines?

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

58. Which insulating material is used for making switches?

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

59. 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 (Correct)**
B) Specific resistance
C) Mechanical strenth
D) Non absorption

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

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

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

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

62. What is the square root of 0.017?

- A) 0.001
B) **0.13 (Correct)**
C) 0.00001
D) 0.000001

63. What is the definition of ratio?

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

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

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

65. What percentage of 80 is 20?

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

66. How much is 8% of 40 kg?

- A) 2.2 kg
B) 3.2 kg (Correct)

- C) 4.2 kg
D) 5.2 kg

67. Convert 52% into fraction?

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

68. Convert 0.456 decimal fraction into percentage?

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

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

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

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

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

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

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

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

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

73. What will be the rpm of smaller gear if a 180 mm dia meshes with 60 mm dia gear and the bigger gear makes 60 rpm?

- A) 120 rpm
B) 140 rpm
C) 160 rpm
D) 180 rpm (Correct)

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

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

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

- A) Rs 200
B) Rs 220
C) Rs 240 (Correct)
D) Rs 260

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

- A) 0.185 (Correct)**
B) 0.175
C) 0.165
D) 0.195

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

A) British and Metric

B) Gravitational and non-gravitational

C) Fundamental and derived (Correct)

D) Metric and International

78. What are fundamental units?

A) Length, Mass, Volume

B) Length, Mass, Time (Correct)

C) Length, Mass, Area

D) Length, Pressure, Volume

79. What denotes letter M in MKS system?

A) Mile

B) Meter (Correct)

C) Millimeter

D) Micron

80. How many millimetres are there in 1 inch?

A) 2.54 mm

B) 25.4 mm (Correct)

C) 24.5 mm

D) 2.45 mm

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

A) 12

B) 18

C) 36 (Correct)

D) 42

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

A) 2

B) 6 (Correct)

C) 18

D) 24

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

A) $\frac{52}{7}$ (Correct)

B) " $\frac{7}{52}$ "

C) " $\frac{28}{7}$ "

D) " $\frac{7}{28}$ "

84. Convert decimal 0.000659 to fraction?

A) $\frac{659}{1000}$

B) $\frac{659}{10000}$

C) $\frac{659}{100000}$

D) $\frac{659}{1000000}$ (Correct)

85. Simplify: $\frac{3}{4} + \frac{2}{5} - \frac{5}{20}$

A) $\frac{3}{10}$

B) $\frac{9}{10}$ (Correct)

C) $\frac{12}{10}$

D) $\frac{13}{10}$

86. Divide $\frac{20}{31} \div \frac{15}{62}$

A) $2\frac{4}{3}$

B) $2\frac{1}{3}$

C) $2\frac{3}{2}$

D) $2\frac{2}{3}$ (Correct)

87. What is the product of 0.003×0.5 ?

A) 0.00015

B) 0.0015 (Correct)

C) 0.015

D) 0.15

88. Simplify: $\frac{17.49 \times 5.2}{6.5}$

A) 13.69

B) 13.79

C) 13.89

D) 13.99 (Correct)

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

A) 0.23 metre

B) 0.25 metre (Correct)

C) 0.28 metre

D) 0.29 metre

90. What is the square root of 529?

A) 12

B) 23 (Correct)

C) 33

D) 43