

Duration: 60 Mins

Total Marks: 63

Q.ID: ITISKILL4950NK

1. What is the square root of 529?

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

Answer: B) 23

2. Which is mineral insulator

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

Answer: D) Mica

3. Which is equal to electric power?

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

Answer: B) I^2R watts

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

- A) 94.8 ohms
- B) 97.8 ohms
- C) 95.8 ohms
- D) 96.8 ohms

Answer: D) 96.8 ohms

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

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

Answer: B) 8

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

- A) $(\frac{3}{10})$
- B) $(\frac{9}{10})$
- C) $(\frac{13}{10})$
- D) $(\frac{12}{10})$

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

7. Which is the example for statically induced emf?

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

Answer: B) Transformer

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

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

Answer: B) 12 W

9. What is the resistance? $I = 11.5$ Amps $V = 380$

Volts $R = \text{_____}$ Ohms

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

Answer: D) 33 ohms

10. 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

Answer: A) 0.25 metre

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

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

Answer: C) 9.6 watts

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

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

Answer: C) 110 Volts

13. What is the definition of ratio?

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

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

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

- A) " $\frac{28}{7}$ "
- B) " $\frac{7}{28}$ "
- C) " $\frac{52}{7}$ "
- D) " $\frac{7}{52}$ "

Answer: C) $(\frac{52}{7})$

15. What is the voltage of the immersion heater? $P = 500$ watts $I = 2.27$ Amps $V = \text{_____}$ Volts

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

Answer: B) 220.3 volts

16. 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 98%

C) Cu 96%

D) Cu 94%

Answer: D) Cu 94%

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

A) Rs 240

B) Rs 260

C) Rs 220

D) Rs 200

Answer: A) Rs 240

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

A) 18

B) 36

C) 42

D) 12

Answer: B) 36

19. Convert 0.456 decimal fraction into percentage?

A) 0.456

B) 0.000456

C) 45.6

D) 0.0456

Answer: C) 45.6

20. How many millimetres are there in 1 inch?

A) 2.54 mm

B) 25.4 mm

C) 24.5 mm

D) 2.45 mm

Answer: B) 25.4 mm

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

A) 2030 watts

B) 2010 watts

C) 2000 watts

D) 2020 watts

Answer: C) 2000 watts

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

A) $2(1/3)$

B) $2(2/3)$

C) $2(4/3)$

D) $2(3/2)$

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

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

A) 2

B) 6

C) 24

D) 18

Answer: B) 6

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

A) 390 volts

B) 395 volts

C) 400 volts

D) 405 volts

Answer: C) 400 volts

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

A) 1 watt

B) 1 HP

C) 1 kilowatt

D) 1 Kilowatt hour

Answer: A) 1 watt

26. How much watt second in 1 watt hour?

A) 2000 watt sec

B) 3600 watt sec

C) 4000 watt sec

D) 1000 watt sec

Answer: B) 3600 watt sec

27. What is the square root of 0.017?

A) 0.13

B) 0.000001

C) 0.001

D) 0.00001

Answer: A) 0.13

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

A) Resistance

B) Voltage

C) Current

D) EMF

Answer: A) Resistance

29. What are fundamental units?

A) Length, Mass, Area

B) Length, Pressure, Volume

C) Length, Mass, Time

D) Length, Mass, Volume

Answer: C) Length, Mass, Time

30. Which is very good conductor?

A) Wrought iron

B) Cast iron

C) Steel

D) Copper

Answer: D) Copper

31. 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) Newton's law

B) Ohm's law

C) Hooke's law

D) Lenz's law

Answer: B) Ohm's law

32. What percentage of 80 is 20?

A) 0.25

B) 0.8

C) 0.2

D) 0.4

Answer: A) 0.25

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

A) 13.99

B) 13.79

C) 13.69

D) 13.89

Answer: A) 13.99

34. Which law states about electromagnetic induction?

A) Faraday's law

B) Lenz's law

C) Hooke's law

D) Ohm's law

Answer: A) Faraday's law

35. What is the formula for induced emf?

- A) $BL \sin \theta$ volts
B) $B^2 L \sin \theta$ volts
C) $BLV \sin \theta$ volts
D) $B^2 V \sin \theta$ volts

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

36. What is the power required? $I = 0.455$ Amps $R = 484$ Ohms $P = \underline{\hspace{1cm}}$ Watts

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

Answer: D) 100.2 watts

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

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

Answer: C) 0.185

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

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

Answer: C) 05:01

39. What is the product of 0.003×0.5 ?

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

Answer: A) 0.0015

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

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

Answer: C) wb/m

41. How much is 8% of 40 kg?

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

Answer: D) 3.2 kg

42. Which machine converts mechanical energy into electrical energy?

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

Answer: D) Generator

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

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

Answer: D) Fundamental and derived

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

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

Answer: D) Current

45. What is the current flow in the bulb? $P = 550$ watts
 $R = 22$ Ohms $I = \underline{\hspace{1cm}}$ Amps

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

Answer: D) 5 Amps

46. What does EMF stand for?

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

Answer: A) Electro Motive Force

47. How many hours will take for a 100 watts bulb to consume 1 kWh energy? $W = 1$ Kwh $P = 100$ Watts $t = \underline{\hspace{1cm}}$ Hours

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

Answer: A) 10 hours

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

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

Answer: B) 180 rpm

49. Convert 52% into fraction?

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

Answer: A) $(13/25)$

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

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

Answer: B) $I = V/R$

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

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

Answer: B) 23.46

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

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

Answer: A) Current

53. What is the current? $R = 50 \text{ Ohms}$ $V = 220 \text{ Volts}$
 $I = \text{_____ Amps}$

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

Answer: D) 4.4 Amps

54. What denotes letter M in MKS system?

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

Answer: D) Meter

55. Convert decimal 0.000659 to fraction?

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

Answer: A) $(659/1000000)$

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

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

Answer: D) 2.4

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

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

Answer: D) 17 ohms

58. 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

Answer: A) 24 days

59. Which is the example for dynamically induced Emf?

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

Answer: C) Generator

60. Which is the unit electrical power?

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

Answer: A) Watts

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

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

Answer: B) 1.65 metre

62. Which is the unit of current?

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

Answer: D) Ampere

63. Which is the unit of resistance?

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

Answer: B) Ohm