

08:03 AM

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Trinity ITI udyavara Udupi

Answer Key

Duration: 120 Mins

Total Marks: 60

Q.ID: ITISKILL717213

1. Which is the unit of current?

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

**Answer: B) Ampere**

2. What does EMF stands for?

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

**Answer: B) Electro Motive Force**3. What is the voltage of the immersion heater?  $P = 500$  watts  
 $I = 2.27$  Amps  
 $V = \underline{\hspace{2cm}}$  Volts

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

**Answer: B) 220.3 volts**

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

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

**Answer: A) Fundamental and derived**

5. What are fundamental units?

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

**Answer: D) Length, Mass, Time**

6. What is the definition of ratio?

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

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

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

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

**Answer: C) Ohm's law**

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

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

**Answer: A) 17 ohms**

9. 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 260  
D) Rs 220

**Answer: B) Rs 240**

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

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

**Answer: A) Current**11. What is the current Flow in the bulb?  $P = 550$  watts  
 $R = 22$  Ohms  
 $I = \underline{\hspace{2cm}}$  Amps

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

**Answer: B) 5 Amps**12. What is the length  $L_2$ , if total length (L) is 2.75 metre and  $L_1:L_2 = 2:3$ ?

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

**Answer: C) 1.65 metre**

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

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

**Answer: B) 24 days**14. What is the voltage?  $R = 250$  Ohms  
 $I = 0.44$  Amps  
 $V = \underline{\hspace{2cm}}$  Volts

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

**Answer: D) 110 Volts**

15. Which is the unit of resistance?

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

**Answer: D) Ohm**

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

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

**Answer: C) 6**

17. 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) 180 rpm  
D) 120 rpm

**Answer: C) 180 rpm**

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

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

**Answer: B) 23.46**

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

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

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

20. How much is 8% of 40 kg?

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

**Answer: B) 3.2 kg**

21. Which is mineral insulator

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

**Answer: D) Mica**

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

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

**Answer: A) 1 watt**

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

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

**Answer: D) 13.99**

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

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

**Answer: C) 05:01**

25. Which machine converts mechanical energy into electrical energy?

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

**Answer: D) Generator**

26. How many millimetres are there in 1 inch?

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

**Answer: D) 25.4 mm**

27. Which is very good conductor?

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

**Answer: B) Copper**

28. 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  
C) 0.28 metre  
D) 0.29 metre

**Answer: B) 0.25 metre**

29. 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) 94.8 ohms  
D) 96.8 ohms

**Answer: D) 96.8 ohms**

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

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

**Answer: D) 2.4**

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

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

**Answer: D) 36**

32. What is the improper fraction for the given mixed fraction ?  $7 \times (3/7)$

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

**Answer: A)  $(52/7)$**

33. Which is the example for statically induced emf?

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

**Answer: B) Transformer**

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

- A)  $(12/10)$   
B)  $(13/10)$

C) (9/10) D) (3/10)

**Answer: C) (9/10)**

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

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

**Answer: C) 0.185**

36. Convert 0.456 decimal fraction into percentage?

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

**Answer: A) 45.6**

37. What is the current?  $R = 50 \text{ Ohms}$   $V = 220 \text{ Volts}$   
 $I = \text{_____Amps}$

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

**Answer: B) 4.4 Amps**

38. Convert 52% into fraction?

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

**Answer: A) (13/25)**

39. Which is the example for dynamically induced Emf?

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

**Answer: C) Generator**

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

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

**Answer: D) Resistance**

41. What percentage of 80 is 20?

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

**Answer: D) 0.25**

42. How much watt second in 1 watt hour?

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

**Answer: B) 3600 watt sec**

43. What is the rated power if an adjustable resistor bears the following label  $1.5 \text{ k ohms} / 0.08\text{A}$ ?

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

**Answer: C) 9.6 watts**

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

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

**Answer: B) 2000 watts**

45. 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**

46. What is the square root of 529?

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

**Answer: B) 23**

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

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

**Answer: C)  $I = V/R$**

48. What denotes letter M in MKS system?

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

**Answer: B) Meter**

49. Which is equal to electric power?

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

**Answer: A)  $I^2 R$  watts**

50. Which law states about electromagnetic induction?

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

**Answer: D) Faraday's law**

51. 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%**

52. Which is the unit electrical power?

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

**Answer: C) Watts**

53. What is the resistance?  $I = 11.5 \text{ Amps}$   $V = 380 \text{ Volts}$   
 $R = \text{_____Ohms}$

A) 43 ohms

B) 33 ohms

C) 23 ohms

D) 13 ohms

**Answer: B) 33 ohms**

A) 0.00001

B) 0.001

C) 0.13

D) 0.000001

**Answer: C) 0.13**

**54.** Convert decimal 0.000659 to fraction?

A) (659/1000000)

B) (659/100000)

C) (659/10000)

D) (659/1000)

**Answer: A) (659/1000000)**

**58.** What is the product of 0.003 x 0.5?

A) 0.0015

B) 0.015

C) 0.00015

D) 0.15

**Answer: A) 0.0015**

**55.** What is the flow of electrons in any conductor?

A) Voltage

B) Power

C) Resistance

D) Current

**Answer: D) Current**

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

A) 101.2 watts

B) 98.2 watts

C) 99.2 watts

D) 100.2 watts

**Answer: D) 100.2 watts**

**56.** What is the unit of intensity of magnetic field?

A) Hertz

B) Coloumb

C) m/wb

D) wb/m

**Answer: D) wb/m**

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

A) 8

B) 6

C) 10

D) 4

**Answer: A) 8**

**57.** What is the square root of 0.017?