

Student Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

1. Which is equal to electric power?  
 A)  $I^2 R$  watts      B)  $RI$   
 C)  $R^2 I$  watts      D)  $IRA$
2. How many hours will take for a 100 watts bulb to consume 1 kwh energy?  $W = 1 \text{ Kwh}$   $P = 100 \text{ Watts}$   $t = \text{ ___ Hours}$   
 A) 18 hours      B) 24 hours  
 C) 10 hours      D) 12 hours
3. Which is very good conductor?  
 A) Copper      B) Steel  
 C) Wrought iron      D) Cast iron
4. 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
5. Which property of a substance is opposing the flow of electric current?  
 A) Voltage      B) Current  
 C) Resistance      D) EMF
6. Convert 52% into fraction?  
 A)  $(11/25)$       B)  $(9/25)$   
 C)  $(17/25)$       D)  $(13/25)$
7. Convert decimal 0.000659 to fraction?  
 A)  $(659/1000000)$       B)  $(659/100000)$   
 C)  $(659/10000)$       D)  $(659/1000)$
8. What is the formula for induced emf?  
 A)  $BL \sin \theta$  volts      B)  $BLV \sin \theta$  volts  
 C)  $B^2 V \sin \theta$  volts      D)  $B^2 L \sin \theta$  volts
9. What is the filament resistance if a 6 volt bulb draws a current of 0.5 Amps?  
 A) 10 W      B) 3 W
- C) 1.2 W      D) 12 W
10. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?  
 A) 17 ohms      B) 11 ohms  
 C)  $1/17$  ohms      D) 7 ohm
11. What is the improper fraction for the given mixed fraction  $7 \frac{3}{7}$ ?  
 A)  $(52/7)$       B)  $"7/52"$   
 C)  $"28/7"$       D)  $"7/28"$
12. What are the two classifications of system of units?  
 A) Metric and International      B) Fundamental and derived  
 C) Gravitational and non-gravitational      D) British and Metric
13. Simplify:  $(3/4) + (2/5) - (5/20)$   
 A)  $(12/10)$       B)  $(3/10)$   
 C)  $(13/10)$       D)  $(9/10)$
14. Which is same in series connection of resistors in a circuit?  
 A) Power      B) Resistance  
 C) Voltage      D) Current
15. What percentage of 80 is 20?  
 A) 0.4      B) 0.8  
 C) 0.2      D) 0.25
16. What is the HCF of 18, 42, 24?  
 A) 18      B) 6  
 C) 24      D) 2
17. How much is 8% of 40 kg?  
 A) 5.2 kg      B) 2.2 kg  
 C) 3.2 kg      D) 4.2 kg
18. What is the ratio of 4 kg to 800 grams?

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

19. What is the product of  $0.003 \times 0.5$ ?

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

20. Which is the example for dynamically induced Emf?

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

21. What is the power required?  $I = 0.455$  Amps  $R = 484$  Ohms  $P = \underline{\hspace{2cm}}$  Watts

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

22. 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

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

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

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

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

25. Which is the unit of resistance?

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

26. What denotes letter M in MKS system?

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

27. What are fundamental units?

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

28. 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) 0.29 metre  
C) 0.28 metre                      D) 0.23 metre

29. What is the current Flow in the bulb?  $P = 550$  watts  $R = 22$  Ohms  $I = \underline{\hspace{2cm}}$  Amps

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

30. Which is the unit of current?

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

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

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

32. 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) 180 rpm                             D) 160 rpm

33. 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 hour                      D) 1 kilowatt

34. How many millimetres are there in 1 inch?

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

35. What does EMF stands for?

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

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

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

37. 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%  
C) Cu 98%                             D) Cu 96%

38. Convert 0.456 decimal fraction into percentage?

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

39. What is the voltage?  $R = 250$  Ohms  $I = 0.44$  Amps  $V = \underline{\hspace{2cm}}$  Volts

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

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

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

41. What is the definition of ratio?

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

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

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

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

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

44. Which is the unit electrical power?

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

45. What is the resistance?  $I = 11.5$  Amps  $V = 380$  Volts  $R =$  \_\_\_\_\_ Ohms

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

46. What is the square root of 529?

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

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

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

48. How much watt second in 1 watt hour?

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

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

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

50. What is the current?  $R = 50$  Ohms  $V = 220$  Volts  $I =$  \_\_\_\_\_ Amps

- A) 4.4 Amps                      B) 4.2 Amps

- C) 4.1 Amps                      D) 4.3 Amps

51. What is the voltage of the immersion heater?  $P = 500$  watts  $I = 2.27$  Amps  $V =$  \_\_\_\_\_ Volts

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

52. Which is the example for statically induced emf?

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

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

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

54. What is the square root of 0.017?

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

55. 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) 96.8 ohms  
C) 95.8 ohms                      D) 94.8 ohms

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

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

57. Which machine converts mechanical energy into electrical energy?

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

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

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

59. Which is mineral insulator

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

60. 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 260                      D) Rs 240

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

- A) Resistance                      B) Power

C) Current

D) Voltage

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

A) Coloumb

B) Hertz

C) m/wb

D) wb/m

63. Which law states about electromagnetic induction?

A) Lenz's law

B) Ohm's law

C) Hooke's law

D) Faraday's law