

Student Name: _____	Roll No: _____
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1. Convert decimal 0.000659 to fraction?

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

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

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

3. What are fundamental units?

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

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

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

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

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

6. 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) 160 rpm B) 120 rpm
C) 140 rpm D) 180 rpm

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

- A) 0.29 metre B) 0.28 metre
C) 0.23 metre D) 0.25 metre

8. Which is mineral insulator

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

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

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

10. Which machine converts mechanical energy into electrical energy?

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

11. What is the power required? $I = 0.455 \text{ Amps}$ $R = 484 \text{ Ohms}$
 $P = \text{_____Watts}$

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

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

- A) $(3/10)$ B) $(9/10)$
C) $(12/10)$ D) $(13/10)$

13. 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

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

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

15. What is the product of 0.003×0.5 ?

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

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

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

17. 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) 10 hours B) 18 hours
C) 24 hours D) 12 hours

18. Which is the unit of current?

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

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

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

20. Convert 52% into fraction?

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

21. Which is the example for statically induced emf?

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

22. What is the definition of ratio?

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

23. What is the voltage? $R = 250 \text{ Ohms}$ $I = 0.44 \text{ Amps}$ $V = \text{___Volts}$

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

24. Which is very good conductor?

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

25. What denotes letter M in MKS system?

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

26. What is the formula for induced emf?

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

27. How many millimetres are there in 1 inch?

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

28. What is the square root of 529?

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

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

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

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

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

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

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

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

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

33. Which is the unit of resistance?

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

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

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

35. What is the current Flow in the bulb? $P = 550 \text{ watts}$ $R = 22 \text{ Ohms}$ $I = \text{___Amps}$

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

36. What is the square root of 0.017?

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

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

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

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

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

- A) 13.89
C) 13.69

- B) 13.99
D) 13.79

C) British and Metric

D) Metric and International

40. Which is the unit electrical power?

- A) Ohms
C) Ampere

- B) Volts
D) Watts

41. What does EMF stands for?

- A) Electromated Force
C) Electro Motive Force

- B) Electro Magnetic Force
D) Electronic Magnetic Force

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

- A) 0.195
C) 0.165

- B) 0.175
D) 0.185

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

- A) 9.4 watts
C) 9.8 watts

- B) 9.2 watts
D) 9.6 watts

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

- A) 8
C) 6

- B) 10
D) 4

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

- A) 21.26
C) 22.26

- B) 22.46
D) 23.46

46. How much is 8% of 40 kg?

- A) 4.2 kg
C) 5.2 kg

- B) 3.2 kg
D) 2.2 kg

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

- A) 395 volts
C) 405 volts

- B) 390 volts
D) 400 volts

48. What percentage of 80 is 20?

- A) 0.25
C) 0.2

- B) 0.4
D) 0.8

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

- A) 26 days
C) 24 days

- B) 22 days
D) 20 days

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

- A) Fundamental and derived

- B) Gravitational and non-gravitational

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

- A) Rs 240
C) Rs 200

- B) Rs 260
D) Rs 220

52. Which is the example for dynamically induced Emf?

- A) Motor bike
C) Generator

- B) Car
D) Motor

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

- A) 94.8 ohms
C) 95.8 ohms

- B) 96.8 ohms
D) 97.8 ohms

54. What is the resistance? $I = 11.5$ Amps $V = 380$ Volts $R = \text{_____ Ohms}$

- A) 23 ohms
C) 13 ohms

- B) 43 ohms
D) 33 ohms

55. Which law states about electromagnetic induction?

- A) Hooke's law
C) Ohm's law

- B) Lenz's law
D) Faraday's law

56. How much watt second in 1 watt hour?

- A) 2000 watt sec
C) 3600 watt sec

- B) 4000 watt sec
D) 1000 watt sec

57. Which is equal to electric power?

- A) IR
C) $R^2 I$ watts

- B) $I^2 R$ watts

- D) RI

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

- A) 1 kilowatt
C) 1 Kilowatt hour

- B) 1 HP
D) 1 watt

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

- A) 24
C) 6

- B) 2
D) 18

60. Convert 0.456 decimal fraction into percentage?

- A) 0.0456
C) 0.456

- B) 45.6
D) 0.000456

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

- A) 08:04
C) 04:08

- B) 05:01
D) 02:04

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

A) Cu 94%

B) Cu 98%

C) Cu 92%

D) Cu 96%

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

A) Voltage

B) Current

C) Resistance

D) Power
