

STD: X
SUB: SCIENCE

TIME: 2.30MINUTES
MARKS: 75 MARKS

I. CHOOSE THE BEST ANSWER

12X1=12

1. Kilowatt hour is the unit of -----? A) Resistivity B) Electric energy C) Conductivity D) Electric power
2. The ratio of the potential difference to the current is known as -----?
A) Volt B) Ohm C) Mho D) Coulomb
3. The value of Avogadro number ----? A) $6.023 \times 10^{23}/\text{mol}$. B) $6.023 \times 10^{-23}/\text{mol}$. C) $6.023 \times 10^{-25}/\text{mol}$. D) $6.023 \times 10^{25}/\text{mol}$.
4. ----- is the absolute scale of temperature of the body? A) 0K B) 1K C) 2 K D) 273K
- 5 Which is an important metal to form amalgam? A) Ag B) Hg C) Mg D) Al
6. The melting point of copper-----? A) 1236°C B) 1326°C C) 1256°C D) 1356°C
7. When pressure is increased at constant temperature the solubility of gases in liquid?
A) No change B) Increase C) Decrease D) No reaction
8. Which is the Deliquescence substance? A) H_2SO_4 B) CaO C) P_2O_5 D) NaOH
9. Node of Ranvier is found in-----? A) Muscles B) Axons C) Dendrites D) Cyton
10. Which part act in temperature control of the human body?
A) Thalamus B) Hypothalamus C) Pons D) Cerebellum
11. The centromere is found at the centre of the ----- chromosome.
A) Telocentric B) Metacentric C) Sub-metacentric D) Acrocentric
12. Down syndrome is the genetic condition with ----- chromosomes. A) 44 B) 45 C) 46 D) 47

II. ANSWER THE ANY 7 QUESTION .Q.NO 22 IS COMPULSORY.

7X2=14

13. State Boyle's Law? 14. Define the unit of Current? 15. What is Rust? Give the equation for formation of rust?
16. What is meant by binary solution? 17. Name the parts of the hind brain? 18. What are Okazaki fragments?
20. Define reflex arc? 21. Name any two device ,which are working on the heating effect of the electric current?
22. A is a silvery white metal. A combines with O_2 to form 800°C , the alloy of A is used in making of aircraft. Find A and B?

III. ANSWER ANY THE ANY 7 QUESTION .Q.NO 32 IS COMPULSORY.

7X4=28

23. Distinguish between linear, areal and superficial expansion? 24. State Ohm's law?
25. State two necessary conditions for rusting of iron? 26. What is aqueous and non- aqueous solution? Give example?
27. Difference between voluntary and involuntary action? 28. What do you understand phenotype and genotype?
29. What are Autosomes, Allosomes? 30. Define volume percentage, mass percentage?
31. (i) State- the law of volume ? (ii) Define one Calorie?
32. (i) What is the role of the earth wire in domestic circuit? (ii) Why is tungsten metal used in bulbs, but not in fuse wires?

IV. ANSWER THE ALL QUESTION. DRAW A DIAGRAM WHEREVER NECESSARY. 3X7=21

33. Derive the Ideal gas equation? (OR) (i) What are the advantages of LED TV over the normal TV?
(ii) List the merits of LED bulb?
34. The electronic configuration of metal A is **2,8,18,1**. The metal A when exposed to air and moisture forms B green layered Compound. A with con. H_2SO_4 forms C and D along with water. D is a gaseous compound. Find A,B,C,D
(ii) Name the acid that renders aluminium passive.why? (OR) Write notes on various factors affecting solubility?
- 35 With a neat labeled diagram explain the structure of a neuron? (OR) How is the structure of DNA organized?
What is the biological significance of DNA?

MOTIVATIONAL THOUGHTS:

**“THE BEST BRAINS OF THE NATION MAY BE FOUND ON
THE LAST BENCH OF THE CLASS ROOM”**

-- Dr.A.P.J. ABDULKALAM

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