FIRST REVISION TEST - 2024

Standard - X

B

Time: 3.00 hrs

SCIENCE

Part - I

Marks:75

12x1=12

Note: 1) Answer all the questions.
2) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer.

1. Newton's III law is applicable
   a) for a body at a rest
   b) for a body in motion
   c) both a & b
   d) only for bodies with equl masses

2. If a substance is heated or cooled, the change in mass of that substance is
   a) positive
   b) negative
   c) zero
   d) none of the above

3. Kilowatt hour is the unit of
   a) resistivity
   b) conductivity
   c) Electrical Energy
   d) electrical power

4. Which of the following is a triatomic Molecule?
   a) Glucose
   b) Helium
   c) Carbon dioxide
   d) Hydrogen

5. Which of the following is the universal solvent?
   a) Acetone
   b) Benzene
   c) Water
   d) Alcohol

6. Rectified spirit is an aqueous solution of which contains about _____ of ethanol.
   a) 95.5%
   b) 75.5%
   c) 55.5%
   d) 45.5%

7. Which is formed during anaerobic respiration?
   a) Carbohydrates
   b) Ethyl alcohol
   c) Acetyl CoA
   d) Pyruvate

8. Heart of heart is called
   a) SA node
   b) AV node
   c) Purkinje fibres
   d) Bundle of HIS

9. Which one is referred as "Master Gland"?
   a) Pineal gland
   b) Pitvitary gland
   c) Thyroid gland
   d) Adrenal gland

10. The Centromere is found at the Centre of the _____ chromosome.
    a) Telo centric
    b) Meta centric
    c) Sub Meta centric
    d) Aero centric

11. The Miracle rice which saved millions of lives and celebrated its 50th Birthday is
    a) IR 8
    b) IR 24
    c) Atomita 2
    d) Ponni

12. An inexhavstible resources is
    a) Wind Power
    b) Soil fertility
    c) Wild life
    d) all the above

Part - II

7x2=14

Note: Answer any 7 of the following. Q.No. 22 is compulsory

13. Differentiate Mass and Weight.
14. What is refractive index?
15. State Boyle's law?
16. Define atomicity?
17. List out the Parasitic adaptations in Leech?
18. Name the parts of the hind Brain?
19. Write the characterestics of the insect pollinated flowers?.
20. Give the name of Wheat variety having higher dietry fibre and Protein?
21. Write a short note on editor and its main parts?
22. Calculate the amount of energy released when a radioactive substance undergoes fusion and results in a mass defect on 2kg?

(2)

Part III

Q.No. 32 is compulsory   7x4=28

Note: Answer any 7 of the following.

23. State Newton's law of Motion?
24. Differentiate the eye defect; Myopia, and Hyper Metropia?
25. a) Name three animals which can hear Ultrasonic Vibrations.
    b) What is the audible range of frequency?
26. a) What is rust? Give the equation for rustification?
    b) State two conditions necessary for rusting of Iron?
27. What is called homologus series? Give any three of its characterestics?
28. a) What is photosynthesis and where in a cell does it occur?
    b) What is respiratory Quotient?
29. Enumerate the functions of blood?
30. How will you prevent soil errossion?
31. Explain the structure of chromosomes?
32. A solution is prepared by disolving
    a) 45gm of sugar in 180gm of water, Calculate the Mass Percentage of the solute?
    b) Calculate the PH of 0.01M HHO_3?

Part IV

Note: Answer all the questions. Draw a diagram wherever necessary.   3x7=21

33. a) i) What is meant by electric current?
      ii) Name and define its unit?
      iii) Which Instrument is used to Measure the electric current? How should it be connected in a circuit?

OR

   b) i) Compare the properties of alpha, beta, Gamma radiations?
      ii) Give the functions of control rods in a Nuclear reactor?

34. a) i) Write the diffrent types of Isotopes of oxygen and it Percentage?
      ii) Calculate the percentage of Sulphur in H_2SO_4.
      iii) In what way hygroscopic substances differ from deliquescent substances.

OR

   b) i) Explain the types of double displacement reactions with examples.
      ii) Differentiate reversible and Inreversible reactions?
      iii Arrive at systematically the IUPAC name of the compound
        $CH_3 CH_2 CH_2 OH$

35. a) i) What is parthirocaspic fruits? Give an example.
      ii) Why are thyroid Hormones refered as personality hormones?
      iii) Natural selection is the driving force for evolution why?

OR

   b) i) Differentiate between outbreeding and inbreeding?
      ii) Suggest measures to overcome the problem of an alcoholic.