



Standard 9 SCIENCE

Time: 3.00 Hours

Marks: 75

12×1=12

I. Choose the correct answer. Write it with the option.

- 1) Rulers, measuring tapes and metre scales are used to measure.
a) mass b) weight c) time d) length
- 2) Clouds float atmosphere because of their low
a) density b) pressure c) velocity d) mass
- 3) Electroplating is an example for
a) heating effect b) Chemical effect
c) Flowing effect d) magnetic effect
- 4) Transformer works on
a) AC only b) DC only c) both AC and DC
- 5) has the same properties throughout the sample
a) Pure substance b) mixture c) colloid d) suspension
- 6) The term nucleons refer to
a) Protons and electrons b) only neutrons
c) electrons and neutrons d) Protons and neutrons
- 7) Example for liquid metal is
a) Sodium b) Mercury c) Pottasium d) Oxygen
- 8) Acid turn blue litmus paper to
a) green b) orange c) red d) yellow
- 9) Poliomyelitis virus enters the body through
a) skin b) mouth and nose c) ears d) eye
- 10) Food and Adulteration Act was enforced by Government of India in the year
a) 1964 b) 1954 c) 1950 d) 1963
- 11) The structural and functional unit of the kidney is
a) villi b) liver c) nephron d) ureter
- 12) Excretory organ of tape worm is
a) flame cells b) nephridia c) body surface d) solenocytes

II. Answer any 7 questions. (Q.No. 22 is compulsory)

7×2=14

- 13) Define least count of any device
- 14) Differentiate speed and velocity
- 15) Why does Helium balloon floats thin air?
- 16) What are electric lines of force?
- 17) State-Fleming's left hand rule?
- 18) Define Sublimation with example.
- 19) Draw the structure of oxygen atom, write atomic number, mass number, proton and neutron
- 20) State Modern periodic law
- 21) Differentiate Phototropism and Photonasty
- 22) Find the oxidation number of sulphur in H_2SO_4 molecule.

III. Answer any 7 questions. (Q.No. 32 is compulsory)

7×4=28

- 23) i) Differentiate mass and weight (2)
ii) Fill ups (2)
a) Negative acceleration is called
b) Area under velocity - time graph shows

- 24) i) State Pascal's law (2)
 ii) **State True or False (2)**
 a) The weight of fluid displaced determines the buoyant force on an object
 b) Hydraulic press is used in the extraction of oil from oil seeds

25) A bird sitting on a high power electric line is still safe. How?

26) **Match (2)**

- | | |
|------------------------------|-----------|
| a) Magnetic material | - Oersted |
| b) Non-magnetic material | - Iron |
| c) Current and magnetism | - Faraday |
| d) Electromagnetic Induction | - Wood |

Fill ups(2)

- i) The mirror used in search light is
 ii) Large mirrors are used in solar furnaces

- 27) a) Define - Tyndall effect (2)
 b) Differentiate - Elements and Compounds.

28) **1) Match (2)**

- | | |
|---------------|-------------------------|
| a) Dalton | - Hydrogen atom model |
| b) Chadwick | - Discovery of nucleus |
| c) Rutherford | - First atomic theory |
| d) Neils Bohr | - Discovery of neutrons |

2) State any four features of modern periodic law

29) List five characteristic features of fishes

30) What are permanent tissues? Describe the different types of simple permanent tissues

31) a) Why do we sweat?

b) Differentiate Kwashiorkor from Marasmus

32) What do you conclude about the speed of light in diamond if the refractive index of diamond is 2.41?

IV. Answer all questions.

3×7=21

33) a) How will you find the thickness of a one rupee coin?

(OR)

- b) i) Explain the different types of motion? (5)
 ii) What are the uses of convex mirror? (2)

34) a) i) State the Gay Lussac's law of combining volumes. Explain with an illustration. (4)

ii) List down the differences between Ionic and Covalent compounds. (3)

(OR)

- b) i) Give the test to identify acids and bases. (3)
 ii) Explain Tyndall effect and Brownian movement with suitable diagram (4)

35) a) i) Give an account on phylum Arthropoda? (3)

ii) Give the difference between Mitosis and Meiosis. (4)

(OR)

b) i) Write about the elements of Xylem? (4)

ii) Explain the role of food control agencies in India. (3)
