

**COMMON QUARTERLY EXAMINATION - 2023 - 24****SCIENCE**

Time Allowed : 3.00 Hours

[Max. Marks : 75

12x1= 12

**I. Choose the correct answer.**

- 1 Metric ton is equal to
  - 100 quintals
  - 10 quintals
  - $1/10$  quintals
  - $1/100$  quintals
- Speed is a \_\_\_\_\_ quantity.
  - Scalar
  - Vector
  - Both a and b
  - None of these
- Clouds float in atmosphere because of their low \_\_\_\_\_
  - Density
  - Pressure
  - Velocity
  - Mass
- \_\_\_\_\_ has the same properties throughout the sample.
  - Pure substance
  - Mixture
  - Colloid
  - Suspension
- Change in the number of neutrons in an atom changes it to
  - Anion
  - An Isotope
  - As isobar
  - Another element
- If Dobereiner is related with 'law of triads' then Newlands is related with
  - Modern periodic law
  - Hund's rule
  - Law of octaves
  - Pauli's Exclusion principle
- Air sacs and pneumatic bones are seen in
  - Fish
  - Frog
  - Bird
  - Bat
- Mesoglea is present in
  - Porifera
  - Coelenterata
  - Annelida
  - Arthropoda
- Smooth muscles occur in
  - Uterus
  - Artery
  - Vein
  - All of the above
- The fibres consists of
  - Parenchyma
  - Sclerenchyma
  - Collenchyma
  - None of the above
- Transpiration takes place through \_\_\_\_\_
  - Fruit
  - Seed
  - Flower
  - Stomata
- Elements in the modern periodic table are arranged in \_\_\_\_\_ groups and \_\_\_\_\_ periods.
  - 7,18
  - 18,7
  - 17,8
  - 8,17

**II. Answer any seven (7) questions only Question no 22 is compulsory.**

7x2=14

**13. Match the following.**

Physical quantity	SI unit
(a) Length	- Kelvin
(b) Mass	- Metre
(c) Time	- Kilogram
(d) Temperature	- Second

14. Compare speed and velocity.
15. State pascal's law.
16. Define sublimation.

17. Write the electronic configuration of K and Cl.
18. State whether true or false. If false, correct the statement.
  - (a) Metals can gain electrons
  - (b) Group 17 elements are named as halogens.
19. What is nematocyst?
20. What is complex tissue? Name the various kinds of complex tissues.
21. What is Libre office Impress?
22. Density of mercury is  $13,600 \text{ kg m}^{-3}$  calculate the relative density.
- III. Answer any 7 questions: (Q.No.32 is compulsory) 7x4=28
23. Differentiate mass and weight.
24. Explain different types of motion?
25. a) On what factors the pressure exerted by the liquid depend on?
  - b) State the laws of flotation.
26. Write the differences between elements and compounds and give an example for each.
27. State any four features of modern periodic table.
28. List any four characteristic features of fishes.
29. Write about the elements of xylem.
30. Differentiate between tropic and nastic movements?
31. a) What is Chlorophyll?
  - b) What is nastic movements?
32. Calculate the number of Neutrons in the following atoms.



(b) Draw the structure of oxygen atom.

IV. Answer all the question. 3x7=21

33. a) (i) How will you find the thickness of a one rupee coin?
  - (ii) Define least count of any device.

(OR)

  - b) (i) Explain the construction and working of a hydrometer with diagram.
    - (ii) Define Velocity.
34. a) Explain Tyndall effect and Brownian movement with suitable diagram.

(OR)

- b) i) Explain the postulates of Bohr's atomic model.
  - ii) Fill in the blanks.
    - (a) The valency of Argon is \_\_\_\_\_
    - (b) \_\_\_\_\_ isotope is used in the nuclear reactors.
35. a) i) Give an account on phylum Arthropoda. (Any five points)
  - ii) List the respiratory organs of amphibians.

(OR)

  - b) i) List out the differences between mitosis and meiosis any five points.
    - ii) What is skeletal connective tissue.