

9

Register No.

9141

HALF YEARLY EXAMINATION - 2024

Time : 3.00 Hours

SCIENCE

Marks : 100

(10 X 1=10)

1. Write the correct answer with notation:

- Rulers, measuring tapes and metre scales are used to measure
a) mass b) weight c) time d) length
- Clouds float in atmosphere because of their low
a) density b) pressure c) velocity d) mass
- Which of the following converts electrical energy into mechanical energy?
a) Engine b) Battery c) Generator d) Switch
- is used as reflectors in torch light.
a) Concave mirror b) Plane mirror c) Convex mirror
- The number of protons, neutrons and electrons, present respectively in ^{80}Br are
a) 80, 80, 35 b) 35, 55, 80 c) 35, 35, 80 d) 35, 45, 35³⁵
- Elements in the modern periodic table are arranged in groups and periods.
a) 7, 18 b) 18, 7 c) 17, 8 d) 8, 17
- Covalent bond is formed by
a) transfer of electrons b) sharing of electrons c) sharing a pair of electrons
- Acids turn blue litmus paper to
a) Blue b) Red c) Orange d) Yellow
- Mesoglea is present in
a) Porifera b) Coelenterates c) Annelids d) Arthropods
- The bending of root of a plant in response to water is called
a) Thigmonasty b) Phototropism c) Hydrotropism d) Photonasty
- The sprouting of onion and potatoes can be delayed by the process of
a) freezing b) irradiation c) salting d) canning
- Which key should be pressed to run a slide show?
a. F1 b. Tab c. F5 d. F2

II. Answer any SEVEN questions. (Compulsory Question No. 22)

(7X2=14)

13. Differentiate mass and weight.

14. Assertion and reason

Assertion: Displacement of a body may be zero when distance travelled by it is not zero.

Reason: The displacement is the shortest distance between initial and final position.

- If both assertion and reason are true and reason is the correct explanation of assertion.
- If both assertion and reason are true but reason is not the correct explanation of assertion.
- If assertion is true but reason is false.
- If assertion is false but reason is true.

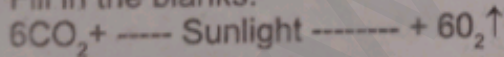
15. Which of the following are pure substances? Ice, Milk, Iron, Hydrochloric acid, Mercury, Brick and Water.

16. Write a note on different types on bonds.

17. Define aquaregia.

18. What is complex tissue? Name the various kinds of complex tissues.

19. Fill in the blanks:



Chlorophyll

20. Match the following.

Organ	Elimination
Skin	a. Urine
Lungs	b. Sweat
Intestine	c. Carbon dioxide
Kidneys	d. Undigested food

21. What are the effects of consuming adulterated food?
22. Light enters from air into a glass plate having refractive index 1.5. What is the speed of light in glass? speed of light in vacuum is $3 \times 10^8 \text{ ms}^{-1}$
- III. Answer any SEVEN questions. (Compulsory Answer to Question No. 32) (7 X 4 =28)
23. i) Match the following.
- | | |
|-------------|----------|
| Length | Kelvin |
| Mass | metre |
| Time | kilogram |
| Temperature | second |
- ii) Define measurement.
24. i) On what factors the pressure exerted by the liquid depends on?
ii) State the laws of flotation.
25. i) Name any two appliances which work under the principle of heating effect of current.
ii. How are the home appliances connected in general, in series or parallel. Give reasons.
26. State whether true or false. If false, correct the statement.
- a. A generator converts mechanical energy into electrical energy.
b. Magnetic field lines always repel each other and do not intersect.
- ii. Draw and label the diagram of an AC generator.
27. State any four features of modern periodic table.
28. Write any four uses of acids.
29. i) Define taxonomy.
ii) Are jellyfish and starfish similar to fishes? If no justify the answer
30. i) Match the following.
- | | |
|----------------|--------------|
| Sclereids | Chlorenchyma |
| Chloroplast | Sclerenchyma |
| Simple tissue | Collenchyma |
| Companion cell | Xylem |
| Trachieds | Phloem |
- ii. What are intercalary meristems? How do they differ from other meristems?
31. i) Give an account of classification of bacteria based on the shape.
ii. Define Vaccines
32. Complete the following table.

Atomic Number	Mass Number	Number of Neutrons	Number of Protons	Number of Electrons	Name of the Element
9	- 19	10	- 9	- 9	- Fluorine
16	- 32	16	- 16	- 16	-

- V. Answer the following questions in detail. Draw pictures if necessary. (3X7=21)
3. A. 1. What do you understand about negative acceleration?
ii. Explain different types of motion. (OR)
- B. i. Pick out the concave and convex mirrors from the following and tabulate them. Rear-view mirror, Dentist's mirror, Torch-light mirror, Mirrors in shopping malls, Make-up mirror.
ii. Explain with diagrams how refraction of incident light takes place from
a) rarer to denser medium b) denser to rarer medium
c) normal to the surface separating the two media.
4. A. i. How are homogenous solutions different from heterogeneous solution? Explain with examples.
ii. Write the differences between elements and compounds and give an example for each. (OR)
- B. i. Why are Noble gases inert in nature?
ii. List down the differences between Ionic and Covalent compounds.
5. A. i. Give the technical terms for the following:
a) Growth dependent movement in plants. b) Growth independent movement in plants.
ii. Differentiate between tropic and nastic movements (OR)
- B. i. What is an adulterant?
ii. Explain the role of food control agencies in India.