

Bhavan's Tripura Vidyamandir
2nd Periodic Assessment: (2025-2026)

Class:-9

Time:-2 Hours

Roll:

Name of the student:

Subject:-Science

Total:-50 Marks

Sec:

GENERAL INSTRUCTIONS:

1. There are 22 questions in this question paper with internal choices.
2. SECTION A consists of 10 multiple choice questions carrying 1 mark each.
3. SECTION B consists of 3 very short answer questions carrying 2 marks each.
4. SECTION C consists of 5 short answer questions carrying 3 marks each.
5. SECTION D contains 1 case study-based questions of 4 marks.
6. SECTION E consists of 3 long answer questions carrying 5 marks each.

SECTION A

1. Process X involved when water at zero degree converted into Water at 25 degree Celsius and Process Y involved when water at 25degree Celsius converted into Water at 100 degree Celsius. Identify X and Y: -
(a) X=Freezing, Y=Melting (b) X=Melting, Y=Evaporation
(c) X=Condensation, Y=Melting (d) X=Evaporation, Y=Condensation
2. Which of the following doesn't undergo Sublimation: -
(a) Iodine (b) Sodium chloride (c) Ammonium chloride (d) Camphor
3. Which one of the following is most likely to exhibit Tyndall effect: -
(a) Sugar and water mixture (b) Potash alum and water mixture
(c) Starch and water mixture (d) Potassium permanganate and water mixture
4. Which of the following is not a connective tissue?
(a) Blood (b) Bone (c) Muscle (d) Tendon
5. Which organelle is involved in the synthesis of lipids and detoxification of drugs?
(a) Ribosome (b) Endoplasmic reticulum (c) Nucleus. (d) Golgi apparatus
6. The inertia of a moving object depends on
(a) momentum of the object (b) speed of the object
(c) mass of the object (d) shape of the object
7. Two particles are placed at some distance from each other. If, keeping the distance between them unchanged, the mass of each of the two particles is doubled, the value of gravitational force between them will become:
(a) 4 times (b) 1/2 times (c) 1/4 times (d) 2 times
8. A body of mass 1kg is attracted by the earth with a force which is equal to
(a) 9.8N (b) 6.67×10^{11} (c) 1 N (d) 9.8m/s

Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

- (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
 - (b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
 - (c) Assertion (A) is true but reason (R) is false.
 - (d) Assertion (A) is false but reason (R) is true.
9. Assertion: -Oxygen is an element.
Reason: - Oxygen cannot be decomposed by a physical or chemical process.
10. Assertion (A): A fielder lowers his hands while catching a cricket ball and suffers less reaction force.
Reason (R): The time of catch increases when fielder lowers his hands while catching a ball.

SECTION B

11. What would you observe when: -
(a) A saturated Solution of potassium chloride prepared at 60 degree Celsius is allowed to cool to room temperature.
(b) A mixture of iron fillings and Sulphur powder is heated strongly. (1+1)

12. Give reason for:

A. Branches of a tree move and bend freely in high wind velocity.

B. It is difficult to pull out the husk of a coconut tree.

13. Write two difference between distance and displacement.

SECTION C

14. How much amount of glucose will be required to prepare 20%(m/m) Solution of 500g of glucose aqueous solution? Write the dispersed phase and dispersion medium of Jelly? (2+1)

15. Define the term latent heat of fusion? Give two ways in which melting points and boiling points can be useful? (1+2)

16. What is cork? How is it formed? Mention its function.

OR

Define plasmolysis. Differentiate between diffusion and osmosis. (1+2)

17. A car accelerates uniformly from 18 km h^{-1} to 36 km h^{-1} in 5 s.

Calculate

(i) the acceleration and

(ii) the distance covered by the car in that time.

(1.5+1.5)

18. Prove that $F = ma$.

(3)

Or,

Why the passengers fall forward when a fast-moving bus stop suddenly? Which law of motion gives the measure of force? (2+1)

SECTION D

19. Case study

One day, Rita was walking through the garden. She plucked the tips of some flowering plants. The gardener saw her doing this and persuaded her not to do so as it is not good for plant growth.

(I) What happens to the plants if their tips are removed?

(a) Will stop the further longitudinal growth of the plants.

(b) Will stop the further lateral growth of plants.

(c) Will stop the further branching.

(d) All of the above.

(II) Which tissue is responsible for growth of the plant body?

(a) Meristematic tissue

(b) Dermal tissue

(c) Vascular tissue

(d) ground tissue

(III) Which of the following statement is incorrect about the tissue discussed above?

(a) It is made up of cells that are capable of cell division.

(b) Large nuclei are present.

(c) Have differentiated cells.

(d) Cellulosic cell wall is present.

(IV) Assertion (A): The tissue discussed above is permanent tissue.

Reason(R): It is only found in the specific region of the plant body.

(a) A and R are true and R is the correct explanation of A.

(b) A and R are true but R is not the correct explanation of A.

(c) A is true but R is false.

(d) A is false but R is true.

SECTION E

20. On heating calcium carbonate gets converted into calcium oxide and carbon dioxide.

(a) Is this a physical change or chemical change?

(b) Can you prepare one acidic and one basic solution by using the products formed in the above process? If so, write the chemical equation involved?

Classify the followings into compounds and mixtures: -

Soap, Methane, Silver, sugar Solution, Sulphuric acid, Silicon

(3+2)

Or

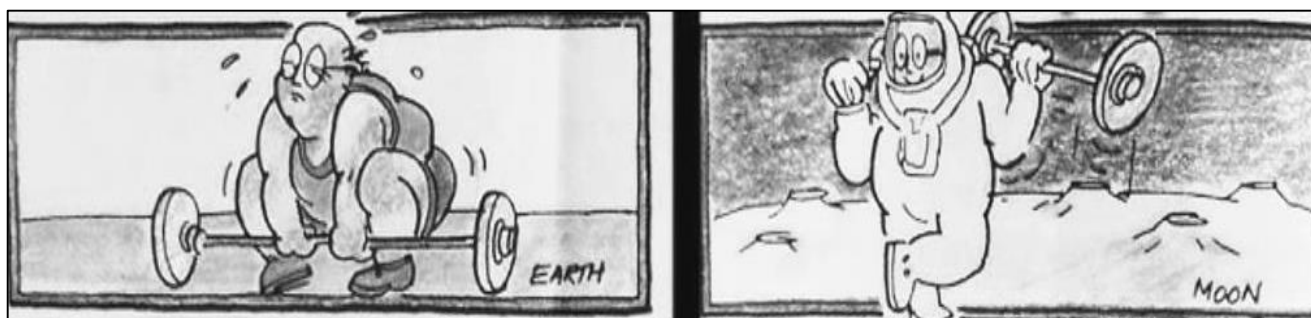
Substance A has high compressibility and can be easily liquefied. It can take up the shape of any container. Predict the nature of the substance and enlist one property of this state of matter. Differentiate between solid and liquid in terms of:-(a) Rigidity and (b) Fluidity? Mention the boiling point of water in kelvin scale? (2+2+1)

21. Differentiate between striated, un-striated and cardiac muscles on the basis of their structure and site/location in the body. Diagrammatically show the difference between the three types of muscle fibers.

Or (3+2)

Draw a clear diagram of the nucleus with clear labelling (label at least 5 points). Write the distinguishing features between plant cell and animal cell. (3+2)

22.



It is quite difficult to lift heavy weights on the earth but it becomes very easy to lift the same heavy weights on the moon. Why?

What is the relation between 'g' and 'G' ?

An object is thrown vertically upwards and rises to a height of 10 m.

Calculate

- (i) The velocity with which the object was thrown upwards and
- (ii) The time taken by the object to reach the highest point. (2+1+2)

Or,

Why does an object float or sink when placed on the surface of water?

In what direction does the buoyant force on an object immersed in a liquid act?

A car falls off a ledge and drops to the ground in 0.5 s. Let $g = 10 \text{ m s}^{-2}$ (for simplifying the calculations).

- (i) What is its speed on striking the ground?
- (ii) What is its average speed during the 0.5 s? (2+1+2)