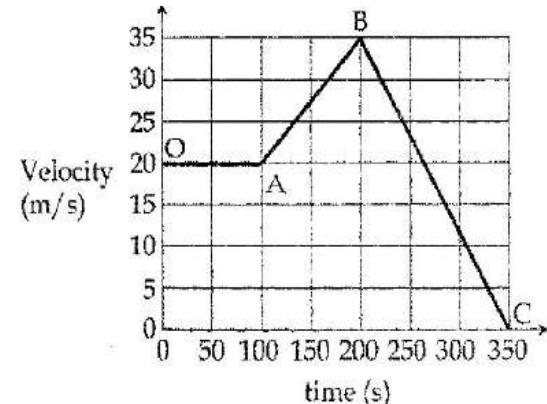


SUMMATIVE ASSESSMENT – 1- 2016-17 Class - IX SCIENCE

Question paper - 5

SECTION – A

1. Name the phenomenon that results in shrinkage of human red blood cells when they are placed in hypertonic salt / sugar solution.
2. Name a physical quantity that varies in uniform circular motion.
3. If mass of a body is doubled, what happens to its acceleration under a given force?
4. State the principle involved in the following techniques of separation of mixtures: (a) Centrifugation (b) Fractional distillation
5. Name the tissue present between internal organs. What are its functions'?
6. It is said that the MASS of an object remains constant at all places while weight may change. Why?
7. Clothes get dry faster in summers than in winters. Give reason. 3
8. (a) Identify two non-metals from the following elements: Carbon. Sodium, Chlorine, Neon, Platinum.
 (b) Name the appropriate methods to separate nitrogen from air. (c) Water is considered as a compound, not a mixture. Comment.
9. Define the following terms: (a) melting point (b) boiling point (c) sublimation
10. Tabulate the difference between a unicellular and multicellular organism based upon
 (a) Life span (b) division of labour (c) identifying feature
11. Differentiate between different types of simple permanent tissues.
12. State reason for the following: (a) It is difficult to hold a hose for a fireman when it ejects large amount of water.
 (b) When an athlete comes running from a distance, he is able to jump longer.
 (c) It is difficult to walk on a slippery road.
13. State the law of conservation. of linear momentum. A body of mass 25 kg has a momentum of 125 kg m/s. Calculate the velocity of the body.
14. A black and a red suitcase were tied to the car roof. It takes 5 ropes to keep a black suitcase from falling down a car while turning and only two ropes to keep the red suitcase from falling down. What do you conclude about the relative weight of the two suitcases? Justify your answer on the basis of Inertia. Also state Newton's Law of Inertia.
15. The velocity-time graph represents the motion of an object for 350 s.
 - (a) Calculate the acceleration for the time interval $100 \text{ sec} < t < 200 \text{ sec}$.
 - (b) Calculate the displacement of the object in 0 to 350 sec.
 - (c) Which type of motion is represented by BC in the velocity time graph?
16. On what factors do the magnitudes of the following qualities depend. (a) Momentum (b) Force (c) Inertia
17. Due to excessive use of chemicals Raghuvir noticed that the productivity of his field has somewhat decreased. He discussed with son Gopal. He asked his father to go for intercropping and crop rotation. They used farm waste as manure instead of fertilizers and had a good yield.
 - (a) What Gopal had suggested is a cropping practice with no or minimal use of chemicals. What is it called?



(b) How can the recycling of organic waste be done in the field? (c) Mention two values shown by Gopal here.

18. Why is organic farming considered beneficial for crop production management? Why is it called ecofriendly process?

19.(a) If 110 g of salt is present in 550 g of solution, then calculate the concentration of the solution.

(b) Explain the terms unsaturated solutions, saturated solutions and solubility.

20. Compare in a tabular form, the smell of perfume and petrol on the basis of the following properties:

(a) Shape (b) Fluidity (c) Volume (d) Compressibility (e) Forces of attraction

21. Complete the following fable:

Example	Tissue	Type of Tissue	Cells (Living/ Dead)	Main Function
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(a) Husk of coconut

(b) In leaf stalk below the epidermis

22. A man ties a stone to a thread and swims it around himself.

(a) Name the kind of motion of stone. (b) is the motion accelerated? Why?

(c) Which force keeps the stone in its path? (d) What is the direction of force?

(e) Draw a figure to show the direction of the force acting on the stone.

23. (a) State two factors on which the gravitational force between two objects depends.

(b) Why is 'G' called as universal constant?

(c) What happens to the gravitational force between two objects if masses of both the Objects is doubled and the distance between them is also doubled?

(d) What is the value of G on moon?

(e) What is the value of 'g' on moon?

24. Explain the different aspects of poultry farming.

SECTION — B

25. In an experiment to test the presence of starch in a sample of food the wrong step is:

(a) Take foodstuff like potato or rice (b) Crush food in boiling water

(c) Add iodine powder in test tube (d) Pour mixture in the test tube.

26. The sample which will give positive result for the experiment of testing of metanil yellow in arhar dal is:

(a) Crushed potato + dill. Hydrochloric acid (b) Yellow dal + conc. hydrochloric acid

(c) Yellow- dal + Iodine solution (d) Crushed potato + Iodine solution

27. Three components Iron, Sulphur and iron sulphide were taken in different test tubes and heated on a burner flame.

The component which will melt first is:

(a) Iron (b) Sulphur (c) Iron sulphide (d) Iron and sulphur both

28. In a china dish, 7g iron filings and 4g sulphur powder are mixed properly. Suggest a method to separate the individual constituents from its mixture.

(a) Physical method (b) Chemical method

(c) Both Physical and Chemical method (d) Components can not be separated

29. Take dilute sulphuric acid in a test tube and put a few zinc granules into test tube. You would observe that:

(a) Zinc granules changes to powder (b) Colour of zinc changes from grey to white

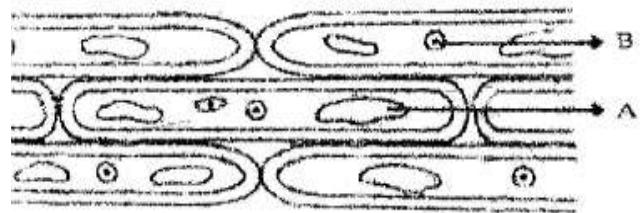
(c) Size of zinc, granules keep on decreasing (d) Surface of zinc metal becomes bright

30. The type of a mixture of a solid and a liquid which can be separated by the process of filtration is:

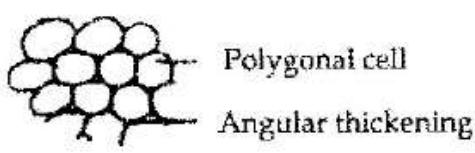
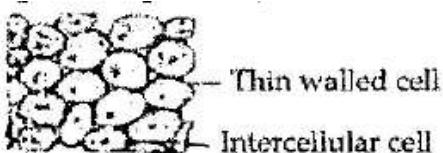
(a) Homogeneous (b) suspension (c) saturated (d) colloidal solution

31. The correct labelling of A and B is:

- (a) Nucleus, cytoplasm
- (b) Nucleus, vacuole
- (c) Vacuole, nucleus
- (d) Cytoplasm, vacuole



32. Diagram shows parenchyma. Given below are diagrams of plant cells. The diagram which represents parenchyma is:



- (a) A
- (b) B
- (c) C
- (d) A as well C

33. To establish relationship between the weight of a block and the force required to make it just move, a student first measured the force required for a block of weight W to move. He then repeated the experiment after placing a weight $\frac{W}{2}$ and then $2W$ on the block. Which of the following statements is likely to agree with the conclusion of the student?

- (a) The force required by a block to just move does not depend on its weight.
- (b) The ratio of force required for making the block just move and its weight is a constant.
- (c) The ratio of force required for making the block just move and its weight is less than one.
- (d) The ratio of force required for making the block just move and its weight is more than one.

34. Dipti was asked to prepare four separate mixtures in four beakers A, B, C and D by mixing sugar, fine sand, thin paste of starch and chalk powder respectively in water and then categorise each as stable or unstable. What will be correct categorization?

35. In an experiment to determine the boiling point of water, mention two important precautions to be taken.

36. In the experiment of determining the percentage of water absorbed by raisins, two students Somya and Zahira used the following formula $\frac{W_1 - W_2}{W_1} \times 100\%$ and $\frac{W_2 - W_1}{W_1} \times 100\%$ respectively:

- (a) Which student used wrong formula? (b) What are W_1 and W_2 in the correct formula?