

Sample paper
Class-IX
SCIENCE

TIME: 3 Hrs

Maximum Marks: 90

Instructions:

- (i) The question paper comprises of two sections, A and B. You are to attempt both the sections.
- (ii) All questions are compulsory.
- (iii) There is no overall choice. However, internal choice has been provided in all the five questions of five marks category. Only one option in such questions is to be attempted.
- (iv) All questions of section A and all questions of section B are to be attempted separately.
- (v) Questions 1 to 3 in section A are one mark questions. These are to be answered in one word or in one sentence.
- (vi) Questions 4 to 6 in section A are two marks questions. These are to be answered in about 30 words each.
- (vii) Questions 7 to 18 in section A are three marks questions. These are to be answered in about 50 words each.
- (viii) Questions 19 to 24 in section A are five marks questions. These are to be answered in about 70 words each.
- (ix) Questions 25 to 33 in section B are multiple choice questions(1 mark) based on practical skills and question 34 to 36 are short answer questions (2 mark) based on practical skills.

Section-A

1. A given substance 'X' has definite volume but no definite shape and can diffuse easily. What is physical state of substance 'X'.
2. Give two examples of colloids.
3. State one factor which affects the quality of honey produced.
4. An object moves in a circular path and completes one revolution in 10s. Find the distance and displacement of the object at the end of 15s.
5. Two objects of mass 2kg and 3kg travelling with a speed of 5m/s collide with each other. If the speed of 2kg mass after the collision is 6m/s, find the speed of 3kg mass.
6. Give two applications of fractional distillation process.
7. What is composting?
8. Define average speed and average velocity. What is uniform acceleration?
9. Draw distance time graph for uniform and non-uniform motion. How can one find speed from such a graph?
10. State Newton's three laws of motion.
11. The mass of an object on the surface of earth is 5kg. What is its weight? What will be its mass and weight on the surface of moon?
12. Obtain a relation between the weight of an object on the surface of earth and that on moon.

13. Describe and explain the effect of increase of pressure on gases and decrease of pressure on solids.
14. Using a flow chart, show the process of obtaining different gases from air.
15. A solution of alcohol in water has been prepared by mixing 100ml of alcohol in 300 ml of water. Calculate the volume percentage of the solution.
16. State the main function of each:
 - (a) nucleus
 - (b) rough endoplasmic reticulum
 - (c) chromoplasts
17. State one similarity and two differences between the two types of transporting tissues in plants.

OR

What are complex tissues? Name the two types of complex permanent tissues present in plants? Give one function of each complex tissue.

18. Which method is commonly used for improving cattle breeds and why?
19. List three methods of weed control.
20.
 - (a) What does the odometer of an automobile measure?
 - (b) What does the path of an object look like when it is in uniform motion?
 - (c) What is uniform circular motion? What is the direction of velocity and acceleration of the object in uniform circular motion?
21.
 - (a) A heavy and a light object have same momentum. Which of these is travelling faster?
 - b) State the law of conservation of momentum. Give examples.
22. Describe an activity to determine the boiling point of water and melting point of ice.

Or

Give an activity to study the process of sublimation with the help of a labelled diagram.

23. Describe the steps with the aid of a diagram to show how water is purified in the waterworks system and list the process involved.
24.
 - (a) Where are the following synthesised in the cell: proteins and lysosomes.
 - (b) What is the composition of chromosomes?
 - (c) What is the plasma membrane made up of?
 - (d) What is the function of areolar tissue?
25.
 - (a) On what factor does the growth of plants and flowering depend?
 - (b) What is mariculture?
 - (c) Name two desirable traits for variety improvement in poultry farming.

OR

- (a) What is mixed cropping? Give its advantage.
- (b) Name two biopesticides.
- (c) What management practices are common in dairy and poultry farming?

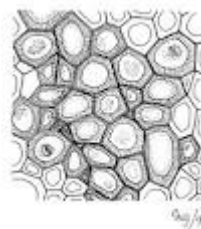
Section-B

26. The value of first 10 division on a spring balance is 20g. what is the least count of the spring balance?
 - (a) 5g
 - (b) 20g
 - (c) 2g
 - (d) 200g
27. The correct order which describes the true solution, colloidal solution and suspension in the order of their increasing stability is:
 - (a) suspension < colloidal solution < true solution
 - (b) true solution < colloidal solution < suspension

- (c) colloidal solution < true solution < suspension
 (d) colloidal solution < suspension < true solution
28. Sublimation can be used to separate :
 (a) volatile and non-volatile liquids (b) volatile and non-volatile solids
 (c) miscible and immiscible liquids (d) None of these
29. While determining the boiling point of water, the teacher suggested to add some pumice stone pieces to the hard glass test tube containing water. This was done to :
 (a) avoid bumping
 (b) avoid melting of hard glass test tube
 (c) prevent unnecessary loss of heat energy
 (d) spread the heat uniformly
30. Boiling point of a liquid depends upon:
 (a) room temperature (b) surrounding temperature
 (c) atmospheric pressure (d) none of these
31. The organelle not present in human cheek cell is
 (a) nucleus (b) mitochondria
 (c) cell membrane (d) chloroplast
32. To determine the percentage of water absorbed by raisins, the raisins were wiped just before weighing. This is to ensure that:
 a) the raisins lose water before weighing.
 (b) only water absorbed by raisins is weighed.
 (c) the weighing scale does not get wet.
 (d) our hands do not get wet.
33. Which food sample you will select to test the presence of starch?
 (a) oil (b) coconut
 (c) egg (d) potato
34. X washed small amount of arhar dal in small amount of water. The water became yellow. He put a few drops of HCl in a test tube containing yellow water. The sample turned pink. This shows that
 (a) dal is not adulterated (b) dal contains protein
 (c) dal is adulterated with metanil yellow (d) dal is coloured with turmeric
35. What happens when iron nail is put in copper sulphate solution?
 36. Why does temperature remain constant during change of state?
 37. You are given 2 slides- parenchyma and sclerenchyma. Identify the plant slide A and slide B. Sclerenchyma can be identified by which characteristic?



Slide A



Slide B