# SUMMATIVE ASSESSMENT –I (20114)

# SCIENCE CLASS – IX

Time : 3 hrs.                                                                                                    M.M. : 90

General Instructions:

• The question paper comprises of two Sections, A and B. You are to attempt both the sections.

• All questions of Section-A and all questions of Section-B are to be attempted separately.

• Question numbers 1 to 3 in Sections-A are one mark questions. These are to be answered in one word or in one sentence.

• Question numbers 4 to 6 in Sections-A is two marks questions. These are to be answered in about 30 words each.

• Question numbers 7 to 18 in Sections-A is three marks questions. These are to be answered in about 50 words each.

• Question numbers 19 to 24 in Sections-A is five marks questions. These are to be answered in about 70 words each.

• Question numbers 25 to 33 in Section-B are multiple choice questions based on practical skills. Each question is a one mark question. You are to select one most appropriate response out of the four provided to you.

• Question numbers 34 to 36 in Section-B are questions based on practical skills are two marks questions.

## SECTION – A

1. What is the primary function of leucoplasts ?

2. Two balls of different masses are thrown vertically upwards with same initial speed. Which one of them will rise to the greater height ?

3.  Mention the significance of sunhemp in the crop variety improvement process.

4. Rohit added small amount of common salt to water taken in a graduated cylinder, on dissolution there was no detectable change in the level of water. Explain why is it so ?

5. (i) What is a tissue ? Justify that blood is a tissue.

 (ii) Identify the meristematic tissues which are located at :

(i) growing tips of roots and stems

(ii) the base of the leaves or internodes on twigs

6. How does the safety belt in the car helps when a moving car applies brake suddenly?

7. (a) How can we say that sugar is a pure substance whereas milk is not.

(b) Which of the following materials fall in the category of a pure substance ?

(i) Ice            (ii) Iron                    (iii) Wood                    (iv) Brick

8. (a) Sodium chloride contains two elements, but it is still a pure substance. Give reason.

(b) How would you confirm that a colourless liquid given to you is pure water ?

9. Sanchit's grandmother was not well. He took his grand mother to the hospital. Doctor suggested some blood tests and urine tests. He went to the diagnostic laboratory with his grandmother for all these tests.

(a) Which technique is used in blood tests and urine tests ?

(b) Mention values shown by sanchit.

10. (a) State the difference between tendon and ligament. (b) Give the function of adipose tissue.

11. Differentiate between xylem and phloem tissues.

12. Find the weight of an object at a height 6400 km above the earth's surface. The weight of the object at the surface of the earth is 20 N and the radius of the earth is 6,400 km.

13 . Mohan along with his schoolmates goes on a camel safari. They travel 3 km north, then 3 km east and then 1 km north again. Draw the path along which they are moving. What distance did they cover ? What is their displacement ?

14. How would you arrive at a mathematical formula to measure force using Second Law of Motion ? Define the unit of force using this formula.

15 . The moon is acted by gravitational pull of earth, still it does not fall on earth. Explain why ? Determine the ratio of weight of an object of mass 50 kg on earth and on moon. (take g earth □ 10 ms□2)(gearth□6 gmoon )

16. Mention the three ways by which insect pests attack the plants.

17. Differentiate between Compost and Vermi Compost ?

18 . Name the common disease of cattle. How can these diseases be cured ?

19. (a) List any two properties that liquids have in common with gases.

(b) Give two reasons to justify that an Iron almirah is a solid at room temperature.

(c) What happens to the heat energy which is supplied to the solid once it starts melting.

20. (a) Draw labelled diagram of the apparatus used to separate components of two miscible liquids (water and acetone). Name the process and state the principle involved.

(b) Identify the physical changes from the following

(i) Melting of ice     (ii) Rusting of iron     (iii) Sublimation of iodine     (iv) Burning of magnesium in air

21. Draw a labelled diagram of unstriated muscle tissue and mention its occurrence, features and functions.

22. Annu has to walk to a medical shop 400 m away from her house to buy some medicine. After walking 100 m, she realizes that she does not have enough money, and goes back home. If it took her two minutes to leave and come back, calculate the following :
(a) How long was she out of the house ?
(b) How far did she walk ?
(c) What was her displacement ?
(d) What was her average velocity (in ms□1) ?
(e) What was her average speed (in ms□1) ?

23. (a) Newton's first law of motion is also called law of inertia. Justify this statement
(b) A plastic ball and a cricket ball are rolled on the floor with same velocity. Which one will cover larger distance before stopping ? Give reason.
(c) A truck is moving with a velocity of 72 km/h and it takes 3s to stop after the brakes are applied. Calculate the force exerted by brakes. Mass of truck is 1200 kg

24. (a) Name any four methods of irrigation and briefly describe them.
(b) Name any two fresh initiatives taken for increasing the water available for agriculture.

SECTION - B

25. Which one of the following chemical gives a blue black colour with starch
(a) fluorine                          (b) chlorine

(c) iodine                           (d) bromine

26. Metanil yellow is added to dal so as to :
(a) improve the taste                    (b) increase its weight
(c) improve the colour and appearance         (d) all of these

27 . What is the correct description of 'X', Y and Z in the following figure related with the heating of a substance ?
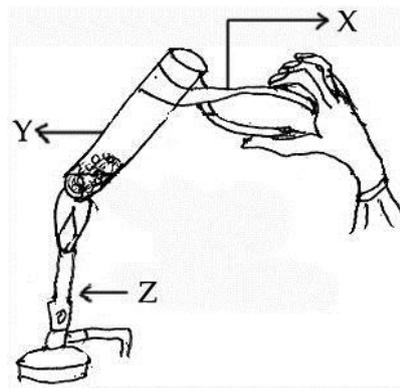


(a) X = Test Tube, Y = Burner, Z = Test tube holder.

(b) X = Test tube holder, Y = Burner, Z = Test tube.

(c) X = Test tube holder, Y = Test tube, Z = Burner.

(d) X = Test tube, Y = Test tube holder Z = Burner.

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. Copper sulphate on heating :

(a) changes from blue to black               (b) changes from blue to white

(c) liberates brown colour gas               (d) changes from blue to brown

30. The cell organelle which is not found in human cheek cells is :

(a) Cell membrane                            (b) Nucleolus

(c) Cell wall                                (d) Cytoplasm

31. In the following diagram; the correct labeling for A and B is :

(a) A - Nucleus B - dendrite                 (b) A - Dendrite B - Axon

(c) A - Axon B - nucleus                     (d) A - Dendrite B - nucleus
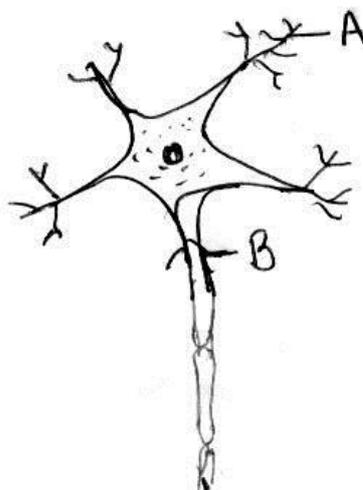


32. A mixture can be characterized by :

(a) No fixed composition of the components.        (b) Homogeneity.

(c) No occurrence of chemical reaction.                    (d) Heterogeneous

33. Umesh wants to measure minimum force required to just move a wooden block on a horizontal surface with the help of a spring balance. The correct way to perform this experiment is :



I                                              II



III                                          IV
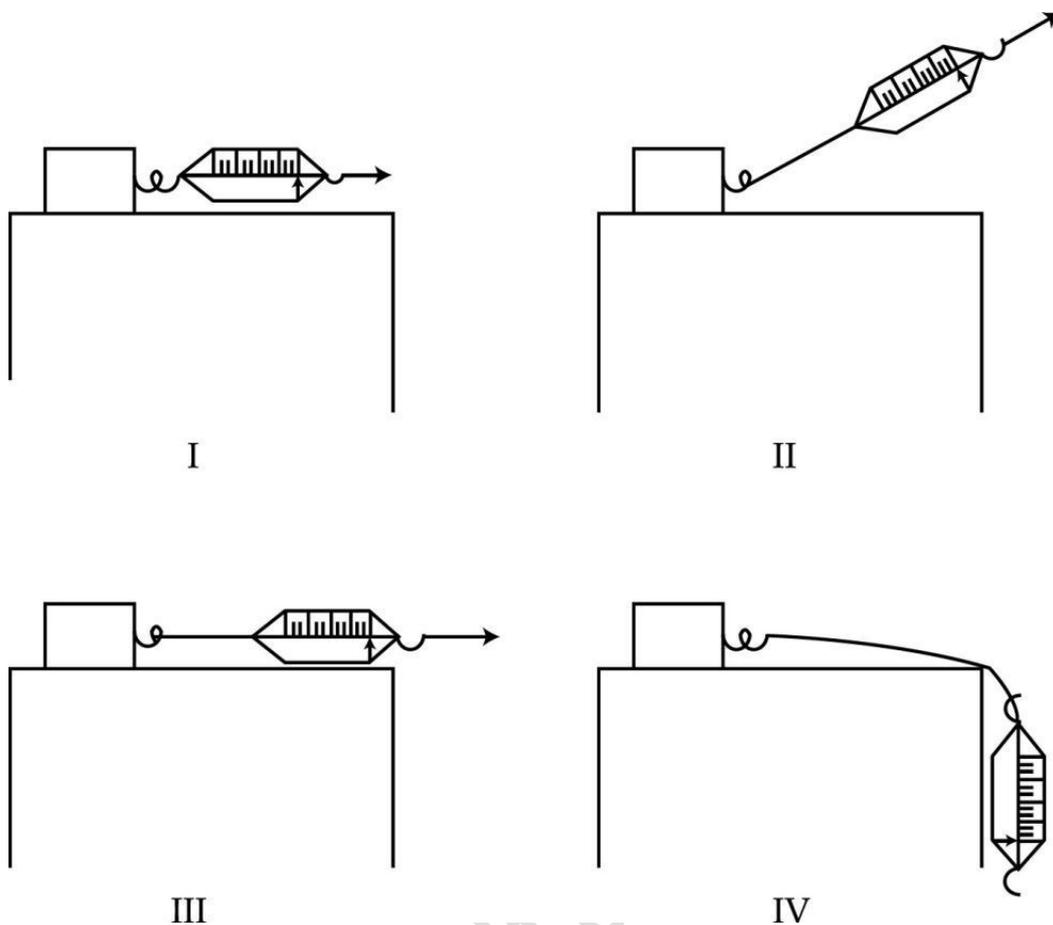
(a) I            (b) II            (c) III                              (d) IV

34 . Rima took fine chalk powder, egg albumin starch powder and alum powder in four test tubes A, B, C and D respectively. After adding water to all the four test tubes, identify the four test tubes as solution, suspension and colloid.

     2

35. Mention the type of thermometer that should be used to determine the melting point of ice in laboratory. What should be the position of bulb of thermometer?                    2

36 .5g of raisins were placed in distilled water for 24 hours. The mass of soaked raisins was found to be 7g. Calculate the percentage of water absorbed by raisins.                    2