CBSE SAMPLE PAPER -02 (Unsolved)

SUMMATIVE ASSESSMENT - I

Class-IX (SCIENCE)

Time: 3 Hrs **MM: 90**

General 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) Question numbers 1 to 3 in Section-A are one mark questions. These are to be answered in one word or in one sentence.

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

(v) Question numbers 7 to 18 in Section-A are three marks questions. These are to be answered in about 50 words each.

(vi) Question numbers 19 to 24 in Section-A are five marks questions. These are to be answered in about 70 words each.

(vii) 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.

(viii) Question numbers 34 to 36 in Section-B are two marks questions are to be answered in about 30 words each based on practical skills.

Section - A

1. Name the chemical substance which gets deposited in the walls of Sclerenchyma.
2. A bus covers equal distance in equal intervals of time. What type of motion does the bus exhibit?
3. A farmer grows gram crop between two cereals crops. Which agricultural practice is being followed here?
4. What will happen if
   a. Almonds are soaked in water?

b. Concentrated solution of fertilizer is applied to green grass lawn?

5. Distinguish between tendon and ligament. Write one characteristic of each.

6. a. How can we liquefy gases?

b. Why do clothes take more time in drying on rainy day?

7. Which would require a greater force- accelerating a 2 kg mass at $5m/s^2$ or a 5 kg mass at $3m/s^2$?

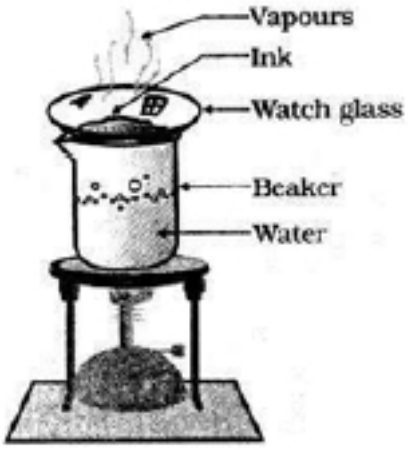
8. What is meant by free fall? A ball is dropped from the roof of a building. It take 10 seconds to reach the ground. Find the height of the building. (g=9.8m/s2) .

9. Mention three different ways in which crop plants can be attacked by insect pests. Also suggest one control measure and two preventive measures against pests.

10. a) Enumerate the changes that take place inside the matter during the change of states.

b) When a solid melts, its temperature remains the same. Give reason.

11. [illegible] and answer the following questions:



i) Name and define the process shown in the diagram.
ii) Which type of substance can be separated by this methods ? iii)
What can we interpret about the nature of ink ?

12. a) Write two points of difference between nuclear region of a bacterial cell and nuclear region of an animal cell.

b) The structure present in the nuclear region of a living cell bears genes?

13. Write three distinguishing features between cells of meristematic and permanent plant tissues.

14. Define uniform and non-uniform motion. Write one example for each.

15. Identify the animal tissues from the given descriptions and also mention their location in the human body.
16. An auto driver moving with a speed of 36 km/h sees a child standing in the middle of the road. He applies break and brings his vehicle to rest in 5 seconds just in time to save the child. If the total mass of the auto and the driver be 450 kg then calculate the force of brakes
17. Tissues 'A' - cells are filled with fat globules and the tissue acts as an insulator.
    Tissue 'B' - has cylindrical branched cells and the tissue shows rhythmic contraction and relaxation throughout life.
18.
    a. Name the property of bodies to resist a change in their velocity.
    b. What is relationship between force and acceleration?
    c. What name is given to the product of mass and velocity of a body?
    d. Which physical quantity corresponds to the rate of change of momentum?
    e. Name the principle on which a rocket works.
19. (a) List any three characteristic of colloid.
    (b) Name the two components of a colloid.
    (c) Identify colloid from the following mixtures :
    Muddy water, sugar in water, ink, blood, soda water, foam.
20. (a) Enumerate any two differences between simple distillation and fractional distillation.
    (b) Draw a labeled diagram showing the process of fractional distillation
21. (a) What do the terms 'macronutrients' and 'micro-nutrients' signify?
    (b) Briefly describe the formation of vermicompost and green manure.
    (c) List two advantages of using manure for nutrient management.
22. A stone is dropped from a height of 10 m on an unknown planet having g = 20 m/s^2.
23. Calculate the speed of the stone when it hits the surface of the planet. Also calculate the time it takes to fall through this height.
24. (a) State one similarity and one difference between evaporation and boiling.
    (b) Account for the following:
    (i) We wear cotton clothes in summer.
    (ii) A wet handkerchief is placed on forehead of a person suffering from high fever.
    (iii) Wet clothes dry slowly during rainy season.

Section B

25. Egg albumin in water forms:

a) True solution b) Colloid

c) Suspension d) None of these

26. The colour of hydrated copper sulphate is :

a) Blue b) Colourless

c) Brown d) Yellow

27. What happens when Zn granules react with dilute sulphuric acid :

a) Bubbles due to colourless , odourless gas are formed and colourless olution is obtained.

b) No reaction takes place.

c) Pungent smelling gas comes out.

d) No gas evolved.

28. At what temperature ice and water both exist together under normal atmospheric pressure?

a) Below 273.16 K b) Above 273.16 K

c) At 273.16 K d) None of these

29. The steps for conducting the starch test on the given sample of rice grains are

i) Crush the rice grains

ii) Add water to the test tube

iii) Add few drops of iodine

iv) Boil the contents and filter

The most appropriate order in which the steps should be followed is

a) ii, iii, I, iv b) ii, I, iii, iv

c) iii, iv, I, ii d) I, ii, iv, iii

30. If no force acts on a body, it will

a) get de-shaped b) Move with increasing speed

c) Either remain at rest or move in a straight line d) Break.

31. While preparing a temporary mount of the Cheek cells, the reason behind staining the cells is

a) To prevent the cells from dying quickly

b) To preserve them

c) To distinct them

d) To make them the organelles clearly visible

32. Recovery of salt from salt solution in water can be done by:

a) Evaporation b) Distillation

c) Filtration d) None of these.

33. A pulse is a/an:

a) An isolated wave a very short duration

b) Group of 1-3 waves

c) Group of large number of waves

d) Electrical in nature having many waves

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 categorizes each as stable or unstable. What will be the correct categorization?

35. In an experiment to determine the boiling point of water, state reason for the following precautions:

a. the bulb of the thermometer should not touch the sides of the beaker.

b. while boiling water, pumice stones should be added.

36. In an experiment to calculate the percentage of water absorbed by resins a student recorded the mass of dry raisins as 16 g and mass of resins after soaking in water for four hours as 20 gm. What is the percentage of water absorbed by resins?