SAMPLE QUESTION PAPER 2015

SUMMATIVE ASSESSMENT – I, 2015 SCIENCE Class – IX

SECTION –A

Question numbers 1 to 3 in Sections-A one mark questions

1. A substance has a definite volume but no definite shape. State whether this substance is a solid, liquid or a gas.

2. What is the resultant force of a number of balanced forces acting on body?

3. Name the plastids which have chlorophyll .

Question numbers 4 to 6 in Sections - A are two marks questions

4. State the difference between homogeneous & heterogeneous mixture. Give one example of each.

5. What is the relation between the mass and the weight of the body ? What are the differences between the two ?

6. State two differences between a mitochondria and plastid.

Question numbers 7 to 18 in Sections - A are three marks questions

7. When a fine beam of light enters a room through a small hole, tyndall effect is observed. Why does this happen ? Give one more example where this effect can be observed.

8.Give reasons :

a) A sponge can be pressed easily; still it is called a solid.

b) Water vapours have more energy than water at same temperature.

c) Naphthalene balls disappear with time without leaving any solid.

9. What is meant by concentration of a solution? Calculate the concentration of a solution which contains 12 g of urea in 160 g of solution.

10. Which of the following has more inertia and Why ?

a) A rubber ball and a stone of the same size .

b) A bicycle and a train.

11. 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.

12. Two similar trucks are moving with a same velocity on a road. One of them is loaded while the other is empty. Which of the two will require a larger force to stop it?

13. Consider two bodies A and B. The body B is heavier than A. Which of the bodies is attracted with a greater force by earth? Which of the two will fall with greater acceleration? Explain.

14.Show that if a body is taken to a height H above the earth's surface acceleration due to gravity is decreased by the factor R2 /(R+H)2 ,Where R is the radius of the earth.

15. State the ways in which phloem is functionally different from Xylem.

16. Draw a neat diagram of a section of Phloem and label four parts.

17. Give one important functional difference amongst the muscle tissues and draw a labeled diagram of the muscle tissue which never shows fatigue.

18. Which cell organelle would you associate with elimination of old and worn out cells and Why?

Question numbers 19 to 24 in Sections - A are five marks questions.

20.(a) Account for the following:

(i) Hydrogen is considered an element. (ii) Water is regarded as compound.

(b) What is the physical state of water at (i) 250°C (ii) 100°C ?

OR

a) What is meant by evaporation? What are the factors on which the rate of evaporation depend upon?

b) How does evaporation cause cooling?

21. a) Name the process you would use to :

(i) recover sugar from an aqueous sugar solution.

(ii) separate mixture of salt solution and sand.

(b) Which of the following will show "Tyndal Effect" &why ?

(i) Salt Solution (ii) Milk (iii) Copper Sulphate Solution (iv) Starch Solution

OR

a) How are sol, solution and suspension different from each other?

b) Which of the following is chemical change? Justify.

(i) Rusting of iron (ii) Mixing of iron fillings and sand (iii) Cooking of food (iv) Freezing of water

22. The graph below represents the distance-time graph of two cars A and B. Which car is moving with a greater speed when both are moving and why?

OR

Define uniform acceleration. Derive the following equations considering uniform acceleration:

(a) $s = ut + \frac{1}{2} at^2$ (b) $v^2 = u^2 + 2as$

23. Identify whether it is balanced or unbalanced force that causes the following different types of movement.

(i) A person resting in an armchair

(ii) A cyclist braking.

(iii) A lorry travelling at a constant speed on a straight road.

(iv) A car that has a deceleration of 10 m/s2.

OR

Explain hoe Newton's second law can be used to define the unit of force. Define the SI unit of force.

24.How crop variety improvement methods come to the rescue of farmers facing repeated crop failure? Describe three factors for which they could do crop improvement.

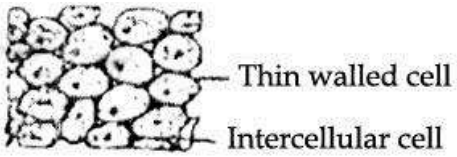
Which is the most common method of obtaining improved variety of crops? Explain briefly.

OR

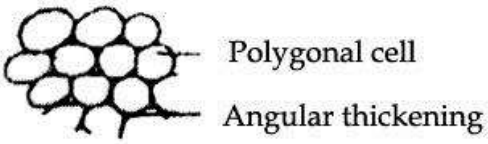
A poultry farmer wants to increase his broiler production. Explain three management practices followed to enhance the yield In what way is the daily food requirement of broiler different from those of egg layers.

Question numbers 25 to 33 in Section-B are multiple choice questions based on practical skills. Each question is a one mark question.

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



A



B

C

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

26. Egg albumin in water forms :

a) True solution b) Colloid

c) Suspension d) None of these

27.Which of the following represents a correct set of observations for a mixture of common salt and water?

	Transparency	Stability	Filtration
a)	Transparent	Unstable	No residue
b)	Transparent	Stable	No residue
c)	Translucent	Stable	No residue
d)	Opaque	Unstable	Residue

28. When a mixture of iron fillings and sulphur is heated , the colour of the mixture changes from :

a) Black to yellow b) Yellow to black

c) Greyish yellow to black d) Black to brown

29. The colour of hydrated copper sulphate is :

a) Blue b) Colourless

c) Brown d) Yellow

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

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

b) No reaction takes place.

c) Pungent smelling gas comes out.

d) No gas evolved.

31. What happens when iron nails are added to copper sulphate solution :

a)The solution becomes pale green and reddish brown copper metal gets deposited.

b) The solution becomes colourless.

c) There is no reaction .

d) Copper displaces iron.

32. Which of the following substances sublimes on heating :

a) Iodine b) Camphor

c) Naphthalene d) All of these

33. 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

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

34.

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

35.

Three students A, B and C were given five raisins each of equal mass. The raisins were soaked in distilled water at room temperature. A soaked the raisins for 10 minutes, B for overnight and C for 60 minutes. Then they calculated the percentage of water absorbed by raisins. Now answer the following questions:-

(a) Name the student whose raisins will show the maximum percentage of water absorbed.

(b) Name the student whose raisins will show the minimum percentage of water absorbed.

36 Study the temperature-time graph give below. This graph shows heating of ice from -10°c to water at 100°C. Represent the change of state on heating. During change of state where does the heat energy go? What is this heat called? 2