SET - A

E 806

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Summative Assessment - Term I 2025 - 26

BASIC SCIENCE

Standard: VIII

Time : 2 hour
Total Score : 60

Instructions

- The first 15 minutes is cool-off time. This time is meant for reading the questions and planning your answers.
- This question paper includes 10 questions in section A, B, C.
- Questions 7, 8 and 10 contain choices.
- You need to answer only one of the options provided for each of these choice - based questions.

Physics

Time : 40 minute
Total Score : 20

Section - A

Select the correct answer for questions 1 to 2. Answer all questions.
(1 score for each question) **(2 x 1 = 2)**

1) Identify the quantity that can be measured using the fundamental unit, second. (1)

a) Depth of a pit
b) Weight of vegetables
c) Duration to complete a race ✓
d) Body temperature

2) Statement 1: The wear and tear of surfaces of moving machine parts in contact and the ability to hold objects firmly are advantages of friction. (1)

Statement 2: Obstruction to smooth movement between machine parts and fuel loss are disadvantages of friction.

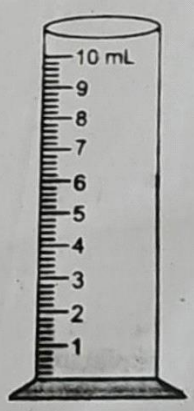
Analyse these statements and find out the correct choice from the following.

a) Both statements are correct
b) Only the second statement is correct
c) Only the first statement is correct
d) Both statements are incorrect

Section - B

Answer questions 3 to 8 in more than one sentence. Questions 7 and 8 have a choice.
(2 score for each question) **(6 x 2 = 12)**

3) Observe the figure. (2)



a) The least count of a commonly used scale is 0.1 cm. What does this mean?

b) What is the least count of the measuring jar shown in the figure?

4) Classify the following quantities into fundamental quantities and derived quantities. (2)

Length, Area, Volume, Mass

Fundamental quantities	Derived quantities
mass length	

5) Complete the table related to state of motion and state of rest. (2)

Context		State of motion / state of rest
	The hat on the head relative to the running child	rest (a)
	The hat on the head of the running child relative to the ground	(b) Motion

6) Here are some entries from a child's science diary. Find the incorrect ones and correct them. (2)

a) Density of kerosene = 810 kg/m/m/m

b) Length of pen = 12 cm

c) Force applied on object = 20n

d) Mass of sugar = 2 kg

7) A. The motion of a mango falling from a tree and a cricket ball hit by a bat both require force. Explain what type of forces are applied in these two situations. (2)

OR

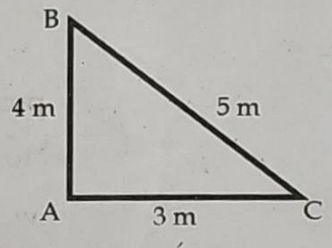
7) B. When sliding a heavy box on a rough surface and moving the same box on a trolley with tyres, what is the difference in the quantity of force we need to apply? Explain. (2)

8) A. A bus travelled a distance of 225 m in 15 s. A car travelled a distance of 294 m in 21 s. Calculate the speed of both vehicles and find out which vehicle has a higher speed. (2)

OR

225 15

8) B. A child took 9 s to reach C from A via B. (2)



Time $\frac{\text{distance}}{\text{speed}}$

105
15 | 225
15
Length

a) What is the child's speed?

b) Find out the time taken by the child to reach back C starting from C with double speed.

Section - C

Questions 9 to 10 carry 3 score each. Question 10 has a choice. **(2 x 3 = 6)**

9) A car's odometer showed 8000 km and the speedometer showed 40 km/h. (3)

a) What is the total distance the vehicle has travelled so far?

b) Convert this distance to SI unit.

c) Write any two rules which have to be obeyed by the pedestrians to avoid road accidents.

10) A. The density of an irregularly shaped stone is given. Describe a procedure to find the mass of this stone using a measuring jar, water, and thread. (3)

OR

10) B. You are given a scale and 100 papers of the same size. Describe a procedure to find the volume of one paper using these. (3)

Chemistry

Time : 40 minute
Total Score : 20

Answer all questions from 1 to 2. 1 score each (2x1=2)

1. Match the following. (1)

Element	Symbol
i) Aluminium	a) F
ii) Iron	b) Au
iii) Fluorine	c) Al
iv) Gold	d) Fe

Choose the correct order.

A) i – b, ii – a, iii – d, iv – c

B) i – c, ii – d, iii – a, iv – b

C) i – c, ii – d, iii – b, iv – a

D) i – d, ii – b, iii – a, iv – c

2. Two statements are given below.

(i) Gold can be coated on a copper bangle by the process of electroplating.

(ii) In this process, the copper bangle is connected to the positive terminal of the battery.

Choose the correct one from the options given below. (1)

A - Both the statements (i) and (ii) are incorrect.

B - Statement (ii) is correct. However, statement (i) is incorrect.

C - Statement (i) is correct. However, statement (ii) is incorrect.

D - Both the statements (i) and (ii) are correct.

Two questions from 3 to 8 have choices. Each question carries 2 scores. **(6 x 2=12)**

3. Two atoms of hydrogen and one atom of oxygen combine to form one molecule of water. Two atoms of oxygen combine to form one molecule of oxygen.

   a) The substances that cannot be broken down into simpler components by chemical reactions are called..... (1)

   b) Water is a compound. Explain. (1)

4. (A) Take some silver nitrate solution in a watch glass and add sodium chloride solution to it. Dip two pieces of cotton in the product formed. Wrap one in black paper and leave the other open for some time. Write the observations and conclusions of this experiment. (2)

   OR

   (B) a) Photosynthesis is a process essential for the existence of life. Write the energy change that occurs in photosynthesis. (1)

   b) Certain medicines are stored in brown coloured bottles. Give reason? (1)

5. a) The chemical equation for the decomposition of calcium carbonate is given.

   $$CaCO_3 \rightarrow CaO + CO_2$$

   What are the products in this reaction? (1)

   b) Write the chemical equation for the reaction of sulphur with oxygen to form sulphur dioxide. (1)

6. Anything that occupies space and has mass is called matter.

   a) What is mass? (1)

   b) Write the procedure of an experiment to prove that matter occupies space. (1)

7. Sodium reacts with water to form sodium hydroxide and hydrogen gas. Is this a physical change or a chemical change? Why? (2)

8. (A) The modern periodic table that we use today is the result of the efforts of many scientists. Explain the classification of elements done by the following scientists.

   a) Lavoisier (1)

   b) Newlands (1)

   OR

   (B) a) How did Mendeleev classify the elements? (1)

   b) Write one advantage of Mendeleev's periodic table. (1)

One question from 9 to 10 have choice. Each question carries 3 scores. **(2 x 3 = 6)**

9. Two activities are given:

   (i) Take some ammonium chloride in a watch glass, add some barium hydroxide to it and stir well with a glass rod. Touch the bottom of the watch glass.

   (ii) Reaction between magnesium and dilute hydrochloric acid.

   a) Write the observation of activity (i). (1)

   b) How can the gas produced in reaction (ii) be identified? (1)

   c) Which form of energy is associated with these two reactions? (1)

10. (A) One molecule of sulphuric acid contains two hydrogen atoms, one sulphur atom and four oxygen atoms.

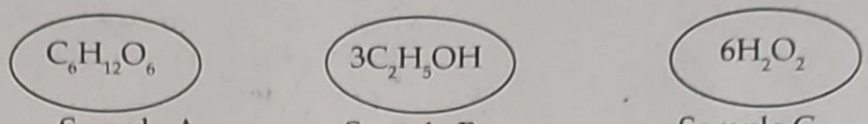
a) Write the chemical formula of sulphuric acid. (1)

b) Find the total number of atoms present in four molecules of sulphuric acid. (1)

c) How many ammonia molecules are required to obtain the same number of atoms as in the above case? (1)

OR

(B)



Sample A Sample B Sample C

a) What is the number of hydrogen atoms present in sample B? (1)

b) Which samples have the same number of atoms? (1)

c) Find the total number of atoms present in five molecules of sample A (1)

Biology

Time : 40 minute
Total Score : 20

Choices are given for questions 7, 8, 10.

Answer questions 1 and 2. Each question carries 1 score. **(2x1=2)**

1. Choose the correct one from the following statements regrding biofertilisers. (1)

i. Do not harm either the texture of the soil or the decomposers.

ii. Can be easily absorbed by the plants.

iii. Helps in the fixation of nitrogen and phosphorus.

iv. Plants get nutrients released from bio residues.

a) i, ii b) i, iii c) i, iv d) ii, iii

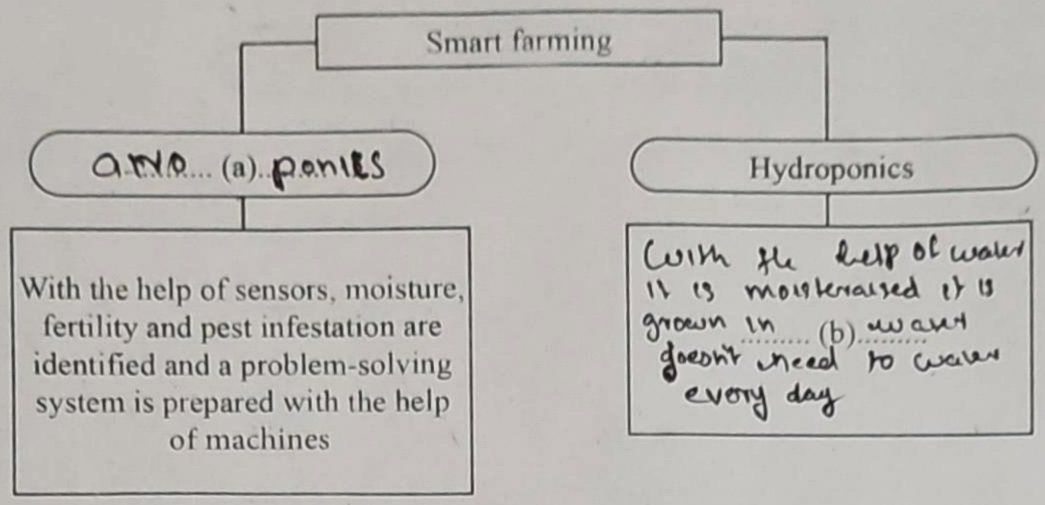
2. Characteristics of prokaryotic cells are given in the box. Choose the correct option given below. (1)

i.	Few cell organelles
ii.	Membrane bound cell organelles present
iii.	Many cell organelles
iv.	Membrane bound cell organelles absent

a) i, ii correct b) i, iii, iv correct c) i, iv correct d) iii only correct

Write answers to questions 3 to 8. Each question carries 2 score. **(6x2=12)**

3. Complete the illustration appropriately. (2)



4. Explain role of the following scientists in the validation of chemical evolution theory.

   a. Sydney Fox (1)

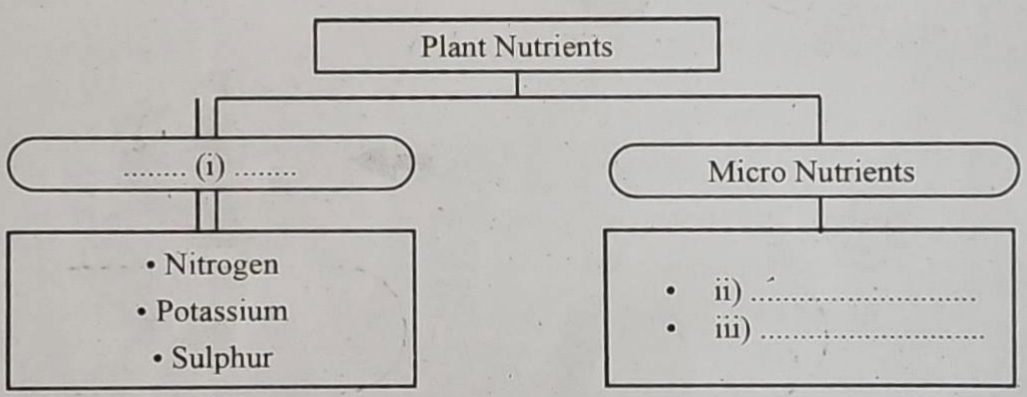
   b. Joan Oro (1)

5. Observe the picture related to utilisation of water and answer the given questions.

   a) Which irrigation method is given in the picture? (1)

   b) Write two advantages of this method. (1)

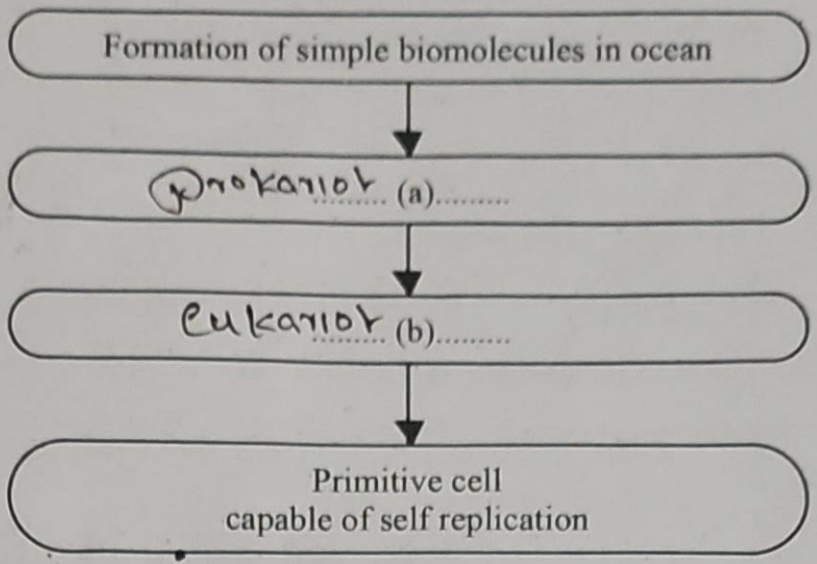
6. Observe the illustration and answer the questions.



   (a) What does (i) indicate? Why is it known in such a manner? (1)

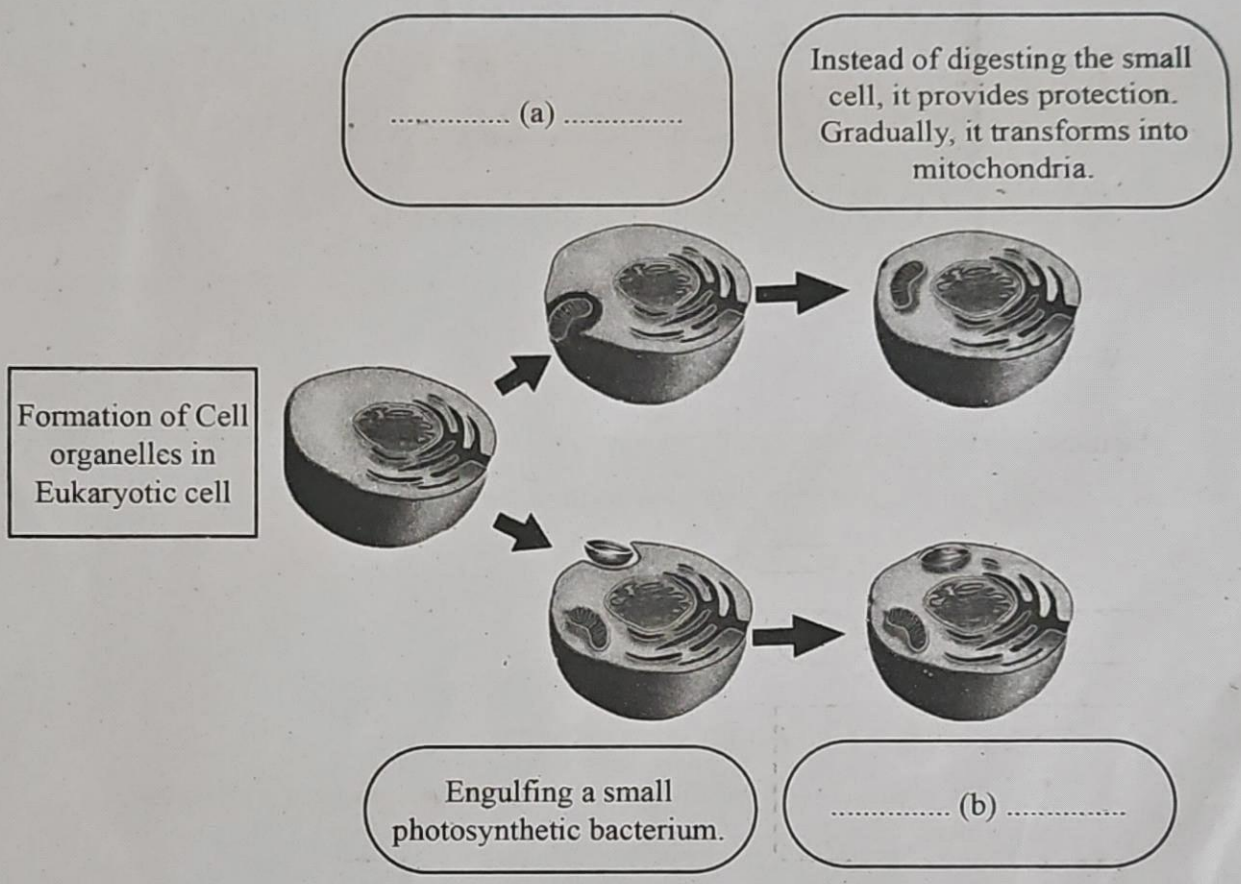
   (b) Identify and write (ii) and (iii). (1)

7. (A) Illustration of the formation of the primitive cell on Earth is given. Fill in the blanks suitably. (2)



OR

(B) Identify a and b illustrated in the formation of cell organelles in a eukaryotic cell. (2)



8. (A) Answer the given questions regarding vertical farming.

a) How does this system help to reduce water utilisation? (1)

b) How does this farming method overcome space constraints? (1)

OR

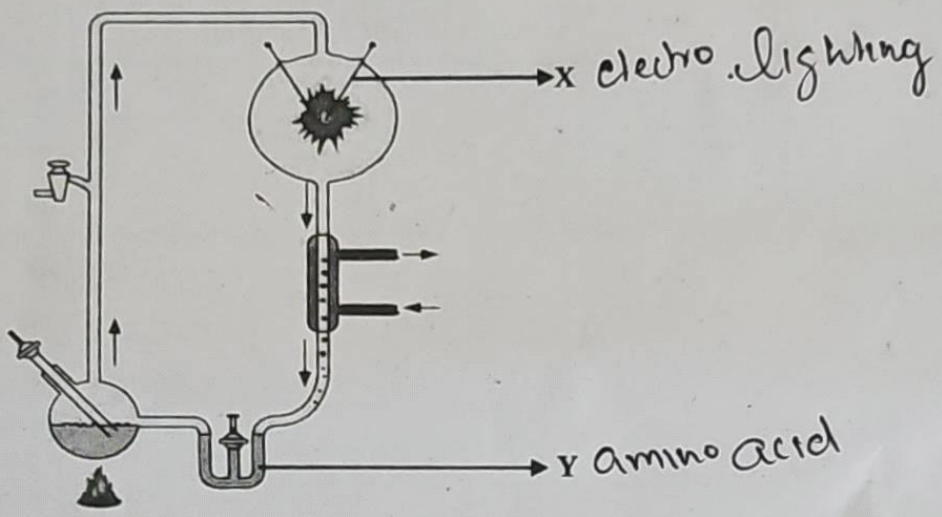
(B) In a seminar on the topic 'Fertilizers - Advantages and Limitations', it was suggested that nano fertilizers are most suitable for agriculture.

a) Write two advantages of nano fertilizers. (1)

b) Is it necessary to avoid excessive use of artificial fertilizers? Why? (1)

Answer questions 9 and 10. Each question carries 3 score. **(2x3=6)**

9. Observe the illustration and answer the questions.



a) Which theory of evolution is validated by this experiment? (1)

b) Write the energy source indicated as 'X' and the product indicated as 'Y' in the experimental setup. (1)

c) What were the situations existed on the primitive earth similar to 'X'?- (1)

10. (A). Evaluate the statement and answer the questions given.

'The introduction of GM crops may pose a threat to local varieties.'

a) How are GM crops developed? (1)

b) Why is it necessary to maintain local varieties? (2)

OR

(B) Evaluate the statement and answer the given questions.

'Pest control is possible without killing all the pests in agricultural fields and causing no harm to nature.'

a) Suggest any 2 methods that can be adopted for this. (2)

b) Name this type of pest control. (1)