Summative Assessment – Term I 2025-26
Sample Question paper

BASIC SCIENCE

Class : VIII **Time : 40 minutes**
Total Score : 20

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 sections A, B and C
- You need to **answer only one** of the options provided

PHYSICS

SECTION A

Write the correct answer by choosing from the given options for questions 1 and 2. Each question carries 1 score.

1. Different units of length are given below. Choose the option in which they are arranged in ascending order and write it. (1)

   A) millimetre, micrometre, centimetre, kilometre

   B) kilometre, centimetre, millimetre, micrometre

   C) micrometre, millimetre, centimetre, kilometre

   D) kilometre, centimetre, micrometre, millimetre

2. Contact and non-contact forces are experienced in various situations. Two statements related to them are given below. Examine them and choose the correct answer. (1)

   Statement 1 Examples of Non-contact forces :

   - A mango falls down.
   - Leaves sway in the wind.
   - A magnet attracts iron.

   Statement 2 Examples of Contact forces :

   - While swimming, water is pushed back.
   - A ball is hit and moves.
   - A nail is hammered with a hammer.

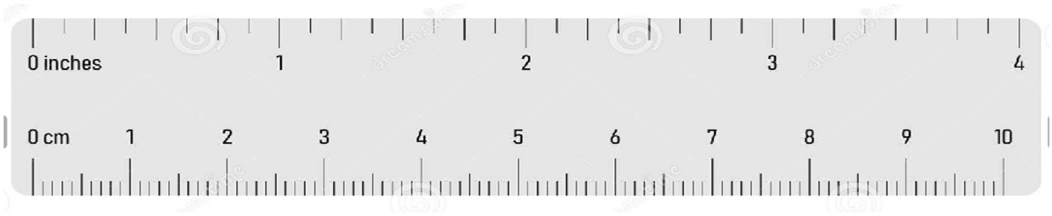
   Options :

   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

Write the answers to questions 3 to 8 in one or more sentences. Questions 7 and 8 have choices. Each question carries 2 score.

3. Observe the image of a scale marked with units like centimetre and inch. (2)



a) What is meant by the least count of a measuring instrument?

b) Find and write the least count of this scale.

4. Observe the following list of quantities which includes both fundamental and derived quantities: (2)

Length, Density, Luminous intensity, Time, Mass

a) From the given quantities, identify and write the fundamental quantities**.**

b) What is the difference between fundamental quantities and derived quantities

5. You are sitting in a moving bus. You consider yourself to be in motion. But another person in the bus says that you are at rest. Examine and explain how both these observations can be correct. (2)

6. Grease is usually applied between the rotating parts of vehicles. (2)

a) What is the property of such substances?

b) By what name are these substances known?

7A. You need to find the volume of an Anklet. Write the procedure to find it using a measuring jar, thread, water etc**.** (2)

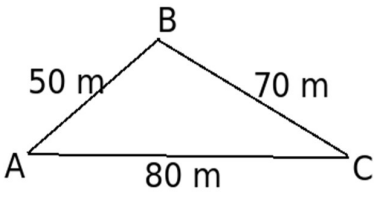
OR

7B. A student was asked to write some measurements using the International System of Units (SI units). Review what the student has written:

- Mass of the wooden block: 1.5 Kg
- Distance from Thiruvananthapuram to Kasaragod: 574 km
- Boiling point of water: 373 Kelvin
- Mass of the beaker: 800 gm.
- Density of water: 1500 kg/metre^3

There are certain rules to be followed while writing SI units**.**
Identify the mistakes in the units written by the student and rewrite them correctly**.**

8A. Observe the diagram related to the path of motion of an object. An object travels from A to C via B at a uniform speed of 3 m/s. (2)



a) Calculate the time taken by the object to travel.

b) If the object were to travel directly from A to C in the same amount of time, calculate the required speed.

OR

8B. A car travels from a place P to a place Q at a uniform speed of 15 m/s. The time taken to travel is 1 hour.

a) What is meant by uniform speed?

b) Calculate the distance from P to Q**.**

SECTION C

Write the answers to questions 9 to 10. Question 10 has a choice. Each question carries 3 score.

9. A child measured the thickness of a 100-page science diary (excluding cover) using a scale and found it to be 3.2 cm. (3)

a) Find the thickness of a single page of the science diary.

b) Convert the thickness of one page into the SI unit and write it.

10 A. Friction in vehicles is both useful and harmful at the same time. (3)

a) In what ways does friction have a harmful effect**?**

b) Give an example where frictional force is used beneficially in vehicles.

OR

10 B Frictional force can be both beneficial and harmful to us.

a) Write examples from daily life where friction causes harmful effects.

b) What are the methods to reduce friction?

CHEMISTRY

Answer all the questions from 1 to 2. 1 score for each question. **(2 × 1 =2)**

1. Match the following.

Element	Symbol
i) Sodium	a) Cu
ii) Calcium	b) K
iii) Potassium	c) Na
iv) Copper	d) Ca

The correct match is

A) i-a, ii-b, iii-c, iv-d B) i-b, ii-c, iii- d, iv-a

C) i-c, ii-d, iii-b, iv-a D) i-d, ii-c, iii-b, iv-a

2. Two statements are given.

Statement 1-Blackening of silver nitrate kept open is a photochemical reaction.

Statement 2-Light energy is absorbed in this reaction.

Select the correct option from the following.

A) Both statements 1 and 2 are correct. 2 is the correct explanation of 1.
B) Statement 1 is correct. But statement 2 is not correct.
C) Statement 2 is correct. But statement 1 is not correct.
D) Both statements 1 and 2 are correct. 2 is not the correct explanation of 1.

There is choice for 2 questions from 3 to 8. Each question carries 2 scores. **(6×2 =12)**

3. (A) When barium hydroxide was mixed with ammonium chloride, the temperature dropped from 27ºC to 21ºC.
   a) Which type of thermochemical reaction is given above?
   b) What is meant by thermochemical reactions?

   OR

   (B) Different forms of energy are absorbed or liberated in chemical reactions.
   a) Write a chemical reaction in which heat is released.
   b) What is the general name of such type of reactions?

4. When carbon reacts with oxygen, carbon dioxide is formed.
   a) What are the reactants and products in this reaction?
   b) Write the chemical equation of this reaction.

5. When a gas is cooled the particles come closer and the attraction between particles increases. Then the gas changes to liquid.
   a) What is change of state?
   b) Which form of energy is associated with this change?

6. Write any two merits of Mendeleev's periodic table.

7. (A) Dobereiner and Newlands have contributed to the classification of elements.
   a) How did Dobereiner classify the elements?
   b) What is the name of classification of Newlands?

OR

(B) Some statements are given below. Select the correct statements of Dalton's theory.
   a) An atom cannot be divided during a chemical reaction.
   b) Molecule is the smallest particle that can participate in a chemical reaction.
   c) An atom cannot be created or destroyed.
   d) Atoms of different elements have same size, property and mass.

8. Two activities are given.
   i) Wax is melted in a spoon.
   ii) Burning of a candle.

   a) Which of these is a chemical change?
   b) Why is it identified as a chemical change?

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

9. Copper is to be coated on an iron bangle.
   a) To which terminal of the battery is iron bangle connected?
   b) Which is the electrolyte used here?
   c) This reaction is an electrochemical reaction. Why?

10.(A) Hydrogen chloride molecule contains one hydrogen atom and one chlorine atom.

   a) What is the chemical formula of hydrogen chloride molecule?
   b) How can you represent 5 molecules of hydrogen chloride?
   c) What is the total number of atoms in 5 molecules of hydrogen chloride?

OR

(B) In one molecule of sulphuric acid two hydrogen atoms, one sulphur atom and four oxygen atoms are present.

   a) Write the chemical formula of a molecule of sulphuric acid.
   b) How will you represent 10 molecules of sulphuric acid?
   c)Find the total number of atoms in 10 molecules of sulphuric acid.

Biology

Questions 1 and 2 carry 1 mark each. **(2x1=2)**

1.Analyse the statements i) to iv) and choose the correct answer from the options given below. (1)

i) The scientist Jovan Oro artificially synthesized the nitrogen base adenine.
ii) Amino acid is an organic molecule that forms the building block of proteins.
iii) In prokaryotic cells, a well-defined nucleus with a membrane is seen.
iv) The primitive cell was formed by the combination of self-replicating amino acids and a surrounding lipid layer.

a. i, ii - incorrect , iii, iv - correct b. i, ii - correct , iii, iv - incorrect

c. i - correct , ii, iii, iv - incorrect d. i, ii, iii - correct , iv - incorrect

2. Choose and write the correct answer from the options given below where the pairs are correctly matched. (1)

I. Fertilizer	II. Examples
P. Artificial fertilizer	i) Nano Phosphate
Q. Nano fertilizer	ii) Urea
R. Biofertilizer	iii) Compost
S. Organic fertilizer	iv) Rhizobium

	(P)	(Q)	(R)	(S)
a.	(iv)	(iii)	(ii)	(i)
b.	(iii)	(ii)	(i)	(iv)
c.	(ii)	(i)	(iv)	(iii)
d.	(ii)	(iii)	(iv)	(i)

Questions 3 to 8 carry 2 marks each. **(6x2=12)**

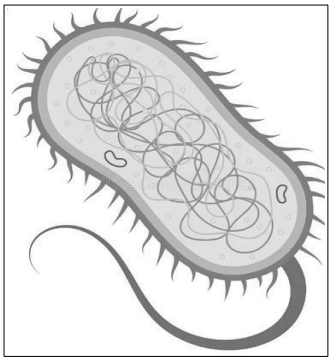
3. The features of a farm newly started by a young farmer are given below. . Analyse them and answer the following questions. (2 marks)

- Farming is done on five acres of land.
- There is paddy cultivation on one side of the field.
- About 50 cents of land is used for cattle rearing.

- There is a pond at the centre of the farm, and fish farming is done in it.

i) Name the method of farming mentioned here ?
ii) How does this method of farming help reduce production costs?

4.Observe the images and answer the following questions. (2)



X

Y

i) Identify which among X and Y is the prokaryotic cell.
ii) Write any three features you considered for identifying it.

5. (A). Write one characteristic each of the agricultural crops developed through the following methods. (2)
i) Genetic engineering
ii) Tissue culture

OR

(B)Images of various pests affecting agricultural crops are provided. Observe them and answer the questions.

X

Y

i) Identify the pests X and Y

ii)How does integrated pest management help control the multiplication of such pests?

6. **Analyse the indicators and answer the questions.** (2 Marks)

Indicators:

P. Life originated on another planet and accidentally reached Earth in the form of microorganisms or spores.

Q. The accidental combination of chemicals in the ocean led to the origin of life.

i) Identify the theories P and Q related to the origin of life on Earth.

ii) Which of these theories has gained more acceptance in the scientific world? Why?

7. (A). If conditions similar to those of the primitive Earth existed today, would the survival of life be possible? Justify your opinion. (2 Marks)

OR

(B). "Eukaryotic cells gained the ability to produce energy after engulfing bacteria."
Do you agree with this statement? Why?

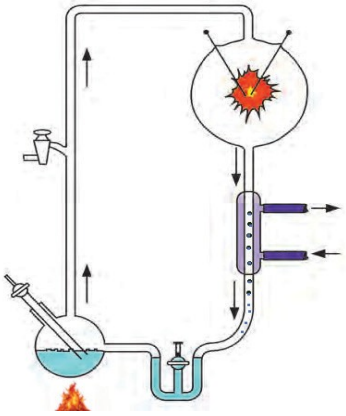
8. A sample presentation slide highlighting the importance of native vegetables is provided. Based on the model, write two ideas that can be included in slides explaining the environmental importance of native vegetables. (2 Marks)

Model :

Native vegetables are nature's gift! Grown without chemical fertilizers, they provide health and immunity, keeping us energetic always. We can eat poison-free food and raise a healthy generation.

Questions 9 and 10 carry 2 marks each. (2x3=6)

9.Observe the illustration and answer the following questions. (3)

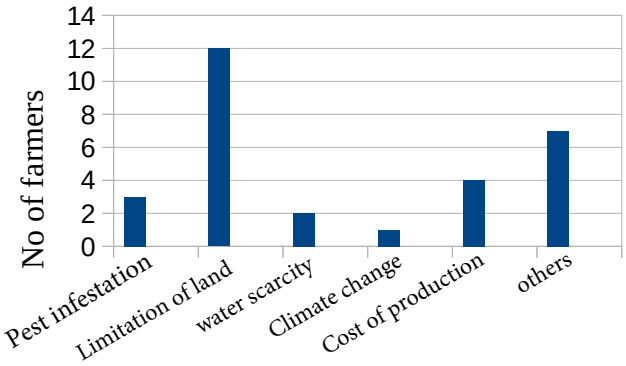


i) What was the aim of setting up the experimental apparatus shown in the illustration?

ii) Why were methane, ammonia, hydrogen, and water vapour used in this experiment? Which organic compound was formed from these gases?

iii) "This experiment was a failure because the sources of energy on primitive Earth could not be recreated. "What is your opinion about this statement?

10. (A). To find the reason for abandoning agriculture, the Agriculture Department conducted a survey among farmers in a certain region. The results of the survey are illustrated below in the form of a graph. Analyse it and write answers to the questions. (3)



Reason to abandon agriculture

(i) Identify the main reason why most farmers in that region abandoned agriculture.
Write the names of **any two farming methods** that could help bring them back to farming.

(ii) Some specific farming methods adopted in that region ensured that water scarcity did not significantly affect the farmers.
Explain **any two** such methods.

OR

(B). The fertilizer usage methods of different farmers are given below.
Analyze them and answer the questions.

- **Farmer 1** – Uses chemical fertilizers such as ammonium phosphate and urea.
- **Farmer 2** – Uses only organic waste like green manure and cow dung.
- **Farmer 3** – Uses microorganisms like *Rhizobium* and *Mycorrhiza*.

(i) Explain how their farming methods affect **soil structure** and the **survival of decomposers**.

(ii) Based on the statement *"Nutrients that can be easily absorbed by plants help in better yield,"* explain how the fertilizers used by **Farmer 1 and Farmer 2** work.
