A

समग्र शिक्षा केरल Samagra Shiksha Kerala

SAMAGRA SHIKSHA KERALA

SUMMATIVE ASSESSMENT – I 2026 -2027

BASIC SCIENCE

E 706

Class : 7

Time: 2 Hrs 15 minutes

Instructions

- **15 minutes cool-off time** is allotted for reading and understanding the activities.
- Answer any six questions.
- Internal choices A and B are given to questions 5 and 6. You need to answer any one of these questions.

1.a) Observe the picture.

This is a method of vegetative propagation. What is this called?

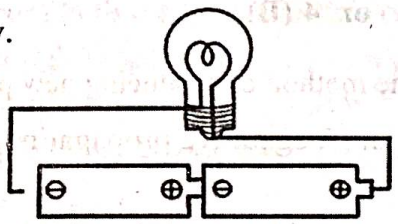
What are the peculiarities of this method?

b) Write two other methods of propagation to make superior quality saplings.

c) Choose the correct statement.

A. Superior quality plants are produced through budding.
B. Budding is possible with all plants.
C. Plants of the same species are not necessary for budding.
D. Budding is possible in arecanut tree.

2. a) Picture of an electric circuit is given below.



(i) What type of circuit is this?

(ii) What change is needed in this circuit to make the bulb glow?

b) Some devices that use cells are given below.

Clock, Emergency lamp, Remote control, Mobile phone, Laptop, Calculator

Classify these devices under suitable headings based on their features.

c) Find the statement related to an open circuit.

A. a fan rotates
B. a bulb which is switched off
C. a working mixie
D. a working washing machine

3. a)A few indicators for identifying Acids and Bases are given below. Arrange them under appropriate headings.

(Turmeric powder, Methyl Orange, Pathimugam water, Phenolphthalin)

A)	B) .....
Turmeric powder	C) .....
D)	Phenolphthalin

b) A student performed a magic in the class changing pathimugam water into a yellow liquid. Which of the following substances did he use?

(Baking soda, Sugar, Lemon juice, Soap powder)

c) The table shows the change of colourof sample 1 and 2 when mixed with methyl orange and turmeric powder.

Sample	Methyl Orange	Turmeric powder
Sample 1	Light Pink	Yellow
Sample 2	Yellow	Red

Write two other natural indicators that can be used for this experiment.

4. Answer 4 (A) or 4 (B)

4. (A)a)Name the method of producing new plants from the parts of a plant other than seeds.

(Hybridisation, Vegetative propagation, Sexual reproduction, Self pollination)

b) Factors to be considered while selecting seeds for planting are given below. Choose the correct option.

A. The quality of soil in which the plant grows.

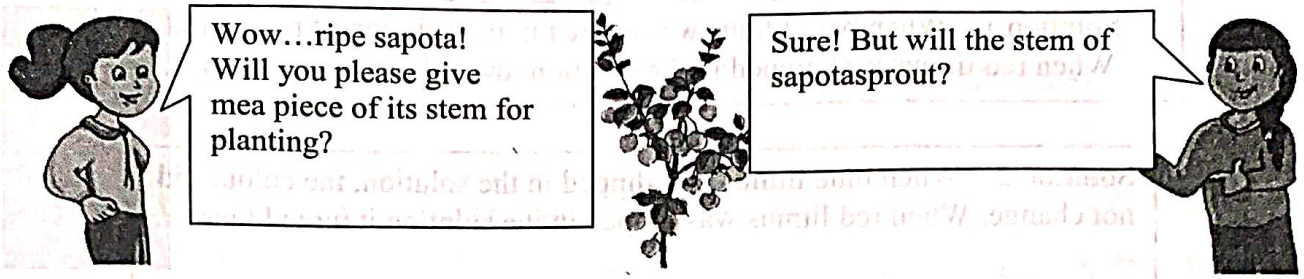
B. Collect seeds from a high yielding plant.

C. Collect seeds from the fruits formed at the initial stage of a plant's lifespan.

D.Collect seeds from a healthy plant.

1. Only A is correct
2. A and D are correct
3. A and C are incorrect
4. B and D are incorrect

c)



Stages of layering sapota is given below. Complete the table.

A.	Select a pencil-sized stem of the mother plant.
B.	.....
C.	....
D.	Many roots will sprout in the area of layering within two months.
E.	.....

OR

4. (B)a) A high yieldingmalgoa branch is grafted to a rooted stem of indigenous variety gomav. Which should be the root stock and the scion?

b) Find out the incorrect statements.

A. A new moringa plant can be produced from both the seed and the stem.

B.New saplings of tapioca are produced through vegetative propagation.

C. New saplings of ginger are produced through sexual reproduction.

D.Production of new saplings from seeds is known as vegetative propagation.

i) A and C ii) C and D

iii) B and D iv) Only A

c) A child grafted a neelam mango tree to an indigenous mango tree. Write three advantages of the new mango tree.

5. a) Choose the statement that is incorrect about organic fertilizers

A. Cannot be supplied as a single component

B. Destroys soil structure

C. Obtained from organic matter

D. Can be produced at home

b) What are the two methods adopted to control harmful pests other than organic pesticides?

c) Excess use of chemical fertilizers destroy soil structure. Comment on this statement.

6. Answer Question 6 (A) or 6 (B).

6. (A) a) Analyse the observation report and identify the nature of the solution.

Solution 1 – When blue litmus was dipped in the solution, it turned red. When red litmus was dipped in the solution, the colour did not change.

Solution 2 – When blue litmus was dipped in the solution, the colour did not change. When red litmus was dipped in the solution it turned blue.

A) Solution 1 : ..... B) Solution 2 .....

b) Write the general properties of solution 1 and solution 2.

c) Examine the statements given below and classify them under appropriate headings.

A. Sour taste B.Turns red litmus, blue

C. Alkaline taste D.Gives a light pink colour when methyl orange is added

i).	**Base**
Sour taste	ii). .....
iii).	iv). .....

OR

6. (B) a) Examine the Statement and Reason given below and write the correct option.

Statement :Turns Blue litmus, red.

Reason : Substance contains acid

A. Statement is correct. The Reason is suitable for the Statement.

B. Statement is correct. The Reason is not suitable for the Statement.

C. Statement is incorrect. The Reason is not suitable for the Statement.

D. Both the Statement and the Reason are incorrect.

b) Write down an experiment to identify substances that have properties of acids or bases. You can use the materials provided below.

(Lime juice, Soap water, Vinegar, Baking sodasolution, Tamarind solution, Hibiscus paper, Turmeric paper)

c) Lemon juice, vinegar and butter milk turn blue litmus, red. Write two common characteristics of these solutions.