



**End of Year Sample
ASSESSMENT ITEMS FOR S.1 AND S.2**

**GENERAL
SCIENCE**

2022

SAMPLE ASSESSMENT ITEMS FOR S.1 AND S.2 GENERAL SCIENCE

For either Physics or General Science, each short response item takes not more than 5 minutes and extended takes not more than 20 minutes. The paper should have sections and the total time for items set in a paper should not exceed 1hr and 30 minutes.

S2 GENERAL SCIENCE SAMPLE ITEMS

Multiple choice items

1. Which of the following features is used to determine whether leaves are simple or compound?
 - A. types of venation
 - B. presence or absence of leaflets
 - C. type of stalk
 - D. nature of margin
2. The following are advantages of vegetative reproduction in plants over reproduction by seeds except:
 - A. Offspring are resistant to diseases.
 - B. Offspring grow faster.
 - C. Offspring obtain food from the parent.
 - D. Good characteristics of the parent plant are preserved.
3. Herbalists remove barks of particular trees to process medicine. Which interference will be noticed on the life of the trees?
 - A. Water movement to the leaves will stop.
 - B. Mineral salt will not be moved to the leaves.
 - C. Food from the leaves will not reach the roots.
 - D. Leaves will not have enough food.
4. 10 g of a soil sample was heated at 110°C to a constant mass of 8 g. What was the percentage of water in the soil sample?
 - A. 20%
 - B. 8%
 - C. 25%
 - D. 80%

SHORT RESPONSE ITEMS

1. Musa comes from one of the mountainous parts of Uganda. Due to shortage of flat land in that area, his family plans to establish a cereal garden on the slope of the mountain. The family fears that they may not get a good harvest due to the terrain of the land.

Propose practices that will help the family to get a good yield of cereals from the hilly place.
(4)

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LOs for this item: The learner should be able to:

- **Understand the meaning of soil erosion and identify its agents and types.**
- **Analyse the effectiveness of the methods of soil conservation.**

Answers to the multiple choice questions

Items	Response
1	B
2	A
3	C
4	A

Scoring the Short Response Item

1.	<ul style="list-style-type: none"> • Terracing the land; to reduce the speed of run-off water. • Mulching; to cover the top soil. • Planting cover crops; to hold the soil particles together. • Contour ploughing; to maintain the soil at the same height of the slope. 	<ul style="list-style-type: none"> • Score 4 for identifying four or more good practices with supporting reasons. • Score 3 for identifying any three good practices with supporting reasons. • Score 2 for identifying any two good practices with supporting reasons.
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<ul style="list-style-type: none"> • Increasing water infiltration to reduce the volume of running water. • Creating diversions to channel excess water down the slope along a predetermined path. • Create open ditches or drains by digging along the slope at regular intervals to reduce volume and speed of running water. 	<p>Score 1 for identifying any one good practice with a supporting reason or identifying any number of good practices without supporting reasons.</p>
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EXTENDED RESPONSE/SITUATION ITEM

1. A vegetable farmer in a certain district discovered several plants in his nursery bed in addition to the vegetable seedlings. This left him puzzled on how these plants came to exist in his nursery bed.

Prepare a written message to this farmer to explain the source of the unwanted seedlings. (10)

LOs for this item:

The learner should be able to:

- **Understand the meaning of fruit/ seed dispersal, its agents and explain its importance to the plant species and farming.**
- **Understand that there are other parts of a plant other than the seed that can develop into a new plant of the same kind.**

ITEM RESPONSE

	Possible responses
	<p>The unwanted plants came to nursery bed by dispersal.</p> <p>a) Wind dispersal: wind blows seeds to different places.</p> <ul style="list-style-type: none"> • Winged seeds and fruit floating in the air. • Light seeds/ fruits for easy carriage by wind. • Floss /pappus of hair for floating in air. Examples; jacaranda, Tridax. <p>b) Water dispersal: flowing water e.g., runoff may take seeds to different locations such as the nursery bed.</p> <ul style="list-style-type: none"> • Hollow to reduce density for easy floating. • Hard seed/fruit coat to resist decomposition. Example; coconut, water lily, and water hyacinth. <p>c) Animal dispersal: some seeds/fruits may be taken inside the animal's body or attached on the animal's fur.</p> <ul style="list-style-type: none"> • Bright coloured pericarps/ Testa for attracting animals. • Succulent/fleshy fruits that animals eat part and throw away seeds. • Scented fruits to attract animals. • Hooked/sticky haired fruits for attachment on animal body fur/ clothes.

	<ul style="list-style-type: none"> • Large fruits for easy spotting by animals. Examples; Black jack/ Bidens 5ilosa, Desmodium, and all succulent fruits. <p>d) Self-dispersal/explosive mechanism.</p> <ul style="list-style-type: none"> • Develop lines of weakness/ sutures at maturity. • Seeds/fruits dry at maturity. • Seeds/fruits lose attachment at explosion. <p>Examples; beans, peas, and castor oil.</p> <p>The unwanted plants came to the nursery by vegetative means such as small roots or stems that remained in the soil during the process of opening up the soil and started growing much later with the vegetables.</p>
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SCORING GRID

Output	Relevance	Accuracy	Coherence	Excellency
A written message detailing how unwanted plants came to the nursery with examples.	<ul style="list-style-type: none"> • Score 3 if learner states that it is due to dispersal and identifies four agents of dispersal. • Score 2 if learner states that it is due to dispersal and identifies 2-4 agents of dispersal. • Score 1 if learner states that it is due to dispersal or identifies 1-2 agents of dispersal even without mentioning dispersal. 	<ul style="list-style-type: none"> • Score 3 if learner identifies four and more agents of dispersal each, with a correct example. • Score 2 if learner identifies 2-3 agents of dispersal, each with a correct example. • Score 1 if learner identifies 1-2 agents of dispersal, each with a correct example. 	<ul style="list-style-type: none"> • Score 3 if learner identifies three or more examples of fruits/seeds dispersed by an agent and the features that make it possible. • Score 2 if learner identifies 2-3 examples of fruits/seeds dispersed by an agent and the features that make it possible. • Score 1 if learner identifies 1-2 examples of fruits/seeds dispersed by an agent and the features that make it possible. 	Score 1 for any unsolicited response that adds value e.g., the non-dispersal methods such as those small plants that remain in the soil and any other one suitable.

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