Natural Sciences · Grade 7

Memorandum · Term 1

TOTAL
42
MARKS

Marking guidelines

1. Award the full mark for a correct answer, even if the learner words it differently.
2. Accept any scientifically correct answer, including one not given in the memorandum.
3. Where a question asks for two or more items, award one mark per correct item.
4. For diagrams, award the mark if the label points at the correct part, even with a spelling error.
5. Do not deduct marks for spelling unless the word takes on a different scientific meaning.

Question	Answer	Marks	Marking note
QUESTION 1 · Multiple choice · 3 marks			
1.1	b. cell	**1**	
1.2	c. cell wall	**1**	
1.3	a. pollination	**1**	
QUESTION 2 · Matching · 4 marks			
2.1	1 = D (fertilisation); 2 = C (tissue); 3 = A (chloroplast); 4 = E (biodiversity)	**4**	*1 mark each.*
QUESTION 3 · Terminology · 4 marks			
3.1	Photosynthesis; Anther; Species; Classification	**4**	*1 mark each.*
QUESTION 4 · Case study · 18 marks			
4.1	The amount of sunlight.	**2**	*2 marks for 'the amount of sunlight'; 1 mark if the learner only names the position of the beds or the tree.*
4.2	The soil; the compost; the amount of water; the kind of plant; the time (six weeks).	**3**	*1 mark per point.*
4.3	Without enough sunlight the plant cannot photosynthesise enough. It makes too little chlorophyll, and chlorophyll is what makes leaves green.	**3**	*1 mark per point.*

Question	Answer	Marks	Marking note
4.4	Carbon dioxide + water (in sunlight) → glucose + oxygen	**3**	*1 mark per point.*
4.5	So that water could not affect the result. If only one variable differs, you know the difference in growth was caused by the sunlight.	**2**	*1 mark per point.*
4.6	Use more plants per bed; repeat the test a second or third time; measure the plants weekly; actually measure the light instead of estimating it.	**2**	*1 mark per point.*
4.7	The roots take up the water; the leaves make the food.	**2**	*1 mark per point.*
4.8	Any one: temperature; nutrients in the soil; carbon dioxide; pests; the pH of the soil.	**1**	*1 mark for any one correct factor.*
QUESTION 5 · Diagrams · 4 marks			
5.1	A = flower (accept: petal); B = leaf; C = stem; D = roots	**4**	*1 mark each.*
QUESTION 6 · Longer questions · 9 marks			
6.1	Frog = amphibian; Snake = reptile; Bat = mammal; Shark = fish	**4**	*1 mark each.*
6.2	Wind — milkweed fluff; animals — burrs or fruit that is eaten; water — the coconut; explosion — pea pods bursting open.	**3**	*1 mark per method given together with a correct example.*
6.3	The more variety, the more stable the ecosystem. If one species disappears, others can take over its role. With little variety, losing one species can collapse the whole system.	**2**	*1 mark per point.*

Total **42 marks**



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