

15.2 Control & Coordination in Plants

Question Paper

Course	CIEA Level Biology
Section	15. Control & Coordination
Topic	15.2 Control & Coordination in Plants
Difficulty	Easy

Time allowed: 30
Score: /18
Percentage: /100

Question 1a

Outline what makes the Venus flytrap (*Dionaea muscipula*) plant a carnivorous plant.

[1 mark]

Question 1b

State the events that lead to a Venus flytrap closing to entrap its prey.

[3 marks]

Question 1c

(i)

State the name of the group of proteins that allow cell elongation under the effects of auxins like IAA (indole 3-acetic acid).

[1]

(ii)

State their mode of action.

[1]

[2 marks]

Question 1d

Following the effect you described in part (c) (ii), explain the events that cause the cell to elongate.

[2 marks]

Question 2a

State the **two** processes that are controlled by gibberellins in plants.

[2 marks]

Question 2b

Farmers wishing to preserve stocks of harvested barley seeds have to keep them dry and cool to avoid early germination.

Explain this in the context of gibberellins and their mode of action.

[2 marks]

Question 2c

Table 1 gives some events associated with the germination of barley.

Table 1

Event	Description
A	starch is hydrolysed to maltose and glucose
B	seeds are dormant (very dry and metabolically inactive)
C	aleurone layer is stimulated to express amylase genes
D	seeds begin to absorb water
E	the embryo can respire and release energy for growth
F	seeds produce gibberellins

Place the events into chronological order, 1st to 6th, in the sequence below.

One event has been completed for you.



[4 marks]

Question 2d

Give the name and function of the large, central part of a barley grain that occupies most of the grain's volume.

[2 marks]