



Excluding Examiner Comments



R3101

PLANT TAXONOMY, STRUCTURE & FUNCTION

Level 3

Wednesday 5 February 2025

09:00 – 10:40

Written Examination

Candidate Number:

Candidate Name:

Centre Name:

IMPORTANT – Please read carefully before commencing:

- i) The duration of this paper is **100** minutes;
- ii) **ALL** questions should be attempted;
- iii) **EACH** question carries **10 marks**;
- iv) Write your answers legibly in the spaces provided. It is **NOT** necessary that all lined space is used in answering the questions;
- v) Use **METRIC** measurements only;
- vi) Use black or blue ink only. Pencil may be used for drawing purposes only. Ensure that all diagrams are labelled accurately with the line touching the named object;
- vii) Where plant names are required, they should include genus, species and where appropriate, cultivar;
- viii) Where a question requires a specific number of answers; only the first answers given that meet the question requirement will be accepted, regardless of the number of answers offered;
- ix) Please note, when the word 'distinct' is used within a question, it means that the items have different characteristics or features.

ANSWER ALL QUESTIONS

MARKS

- Q1 a) Explain how specific epithets can give information about a plant giving **TWO** distinct **NAMED** plant examples for **EACH** type of epithet, by completing the table below:

8

Type of Epithet	Plant example	Meaning of specific epithet
Commemoration	1.	1.
	2.	2.
Colour	1.	1.
	2.	2.

Please see over/.....

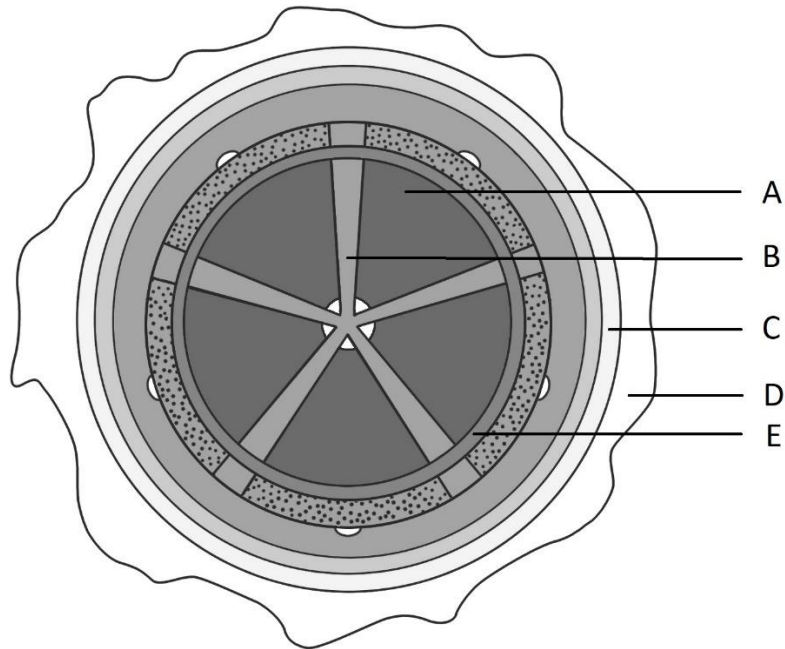
Q2 a) Describe the process of carbon dioxide fixation in photosynthesis.

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Q4 a) Identify the features labelled A-E on the diagram of a woody stem below:



A.....
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B.....
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C.....
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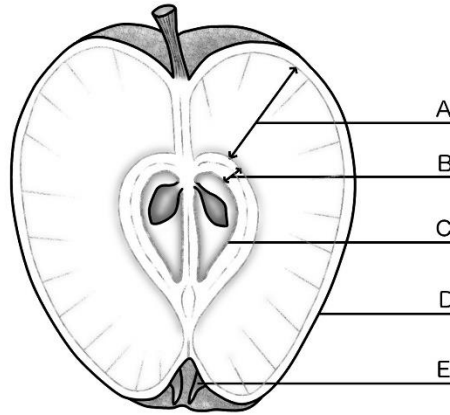
D.....
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E.....
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Please see over/.....

Q7 a) Name the fleshy fruit type shown in the diagram below and give **TWO** plant examples of horticultural importance.

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Name of fruit type

Plant example 1.....

Plant example 2.....

b) Name the features A-E on the diagram shown in a)

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A.....
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B.....
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C.....
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c) Name **ONE** other fleshy fruit giving a **NAMED** plant example.

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Total Mark

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MARKS

Q8 a) Explain why aerobic respiration is essential for successful root growth.

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b) Describe how outdoor planting conditions can affect root respiration.

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Total Mark

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MARKS

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Q9 a) Describe the reproductive characteristics of conifers.

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Q10 a) Describe **FIVE** features of flowers which adapt them for butterfly pollination.

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