

**2024 SEED MSCE MOCK
BIOLOGY PAPER II
PROVISIONAL MARKING KEY
BIOLOGY PAPER II**

PROVISIONAL MARKING SCHEME

1. *1 Cut two freshly leafy shoots*
 - 1 Attach them into separate potometer A and B*
 - Fill the potometers with water.*
 - 1 Introduce air bubble into each photometer*
 - 1 Set the air bubble on a specific point on the potometer*
 - 1 Record the reading*
 - 1 Set potometer A in bright light and B in the dark classroom C*
 - 1 Leave them for a few hours*
 - 1 Observe*
 - 1 The air bubble in A will move more than one in B*
 - 1 This shows that plant A lost a lot of water which was being replaced showing movement of the air bubble.*

(Total marks 10)

NB: *Observe order of events*

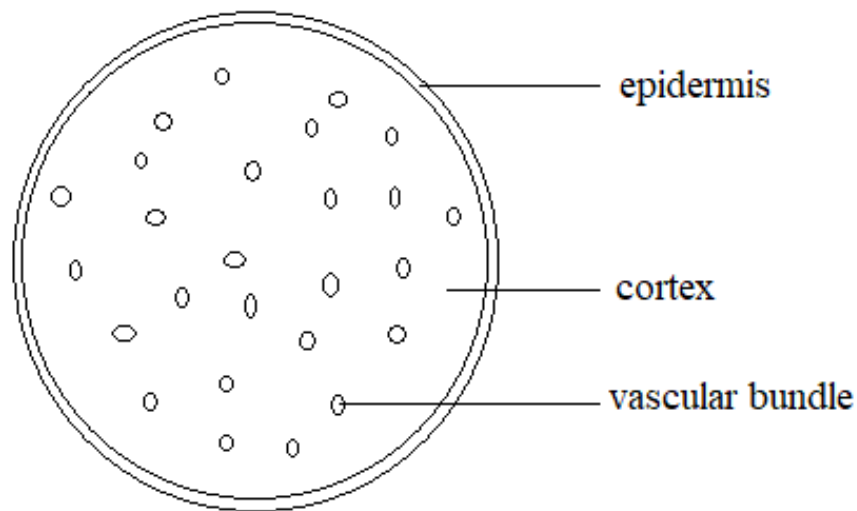
2. *1 Identify a physically fit person*
 - 1 Allow the person to be at rest.*
 - 1 Count the number of breaths in a minute*
 - 1 Record as Y*
 - 1 Allow the person to do a physical exercise for 20 minutes*
 - 1 Count the number of breaths in a minute*
 - 1 Record as Z*
 - 1 Compare the values of Y and Z*
 - 1 Value Z is expected to be higher*
 - 1 Physical exercise increases breathing rate to supply O₂ and glucose for respiration.*



**2024 SEED MSCE MOCK
BIOLOGY PAPER II
PROVISIONAL MARKING KEY**

Total: 10 marks

3. a)



1 for correct diagram

1 for each correct label (3 marks)

- b. (i). Monocotyledon
(ii). Vascular bundles are scattered

- c. 18 mm to 45 mm

- d. 1 mark for correct formula
1 mark for correct substitution
1 mark for correct answer with a X sign

Total 10 marks

**2024 SEED MSCE MOCK
BIOLOGY PAPER II
PROVISIONAL MARKING KEY**

4. a)

Container	Length of strip after the experiment	Flexibility strips after the experiment
A	19 – 20 mm	Not flexible
B	17 – 18 mm	Moderately flexible
C	10 – 18 mm	Very flexible

(6 marks)

b) (i) A

(1mark)

(ii) Water moved from the container into the strip cells by Osmosis / making the cells more turgid / because the cell vacuoles were more concentrated compared to the solution in the container.

(3 marks)

END OF PROVISIONAL MARKING SHEET