

SUNSHINE SECONDARY SCHOOL MOCK 2015

BIOLOGY PAPER 3

1. You are provided with specimen **S**. Study the specimen carefully then answer questions that follow.

a) Make a drawing of specimen **S** and label midrib, leaf lamina, leaf margin, and leaf petiole. (3mk)

b) Name the class to which the specimen belongs. (1mk)

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c) Identify two features of the specimen **S** that may have been used to place it in the class named in (b) above. (2mk)

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d) Using observable features only, explain how the specimen **S** is adapted to its photosynthetic function. (6mk)

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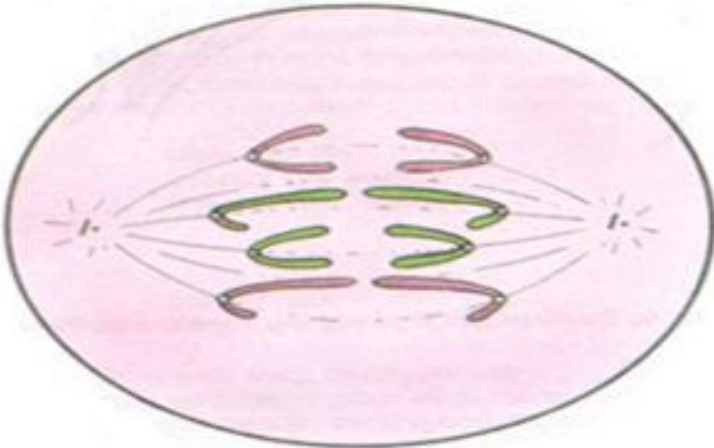
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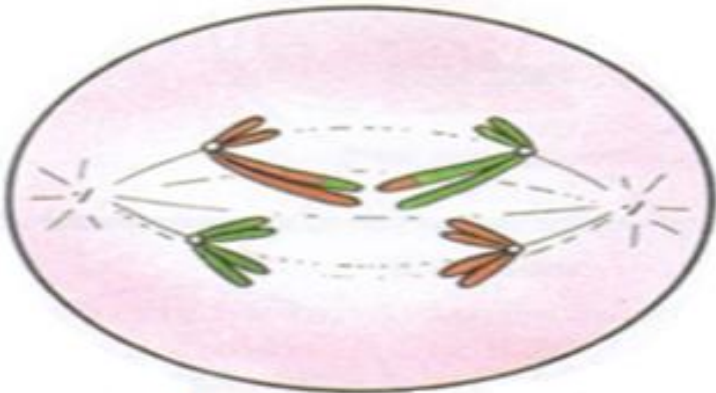
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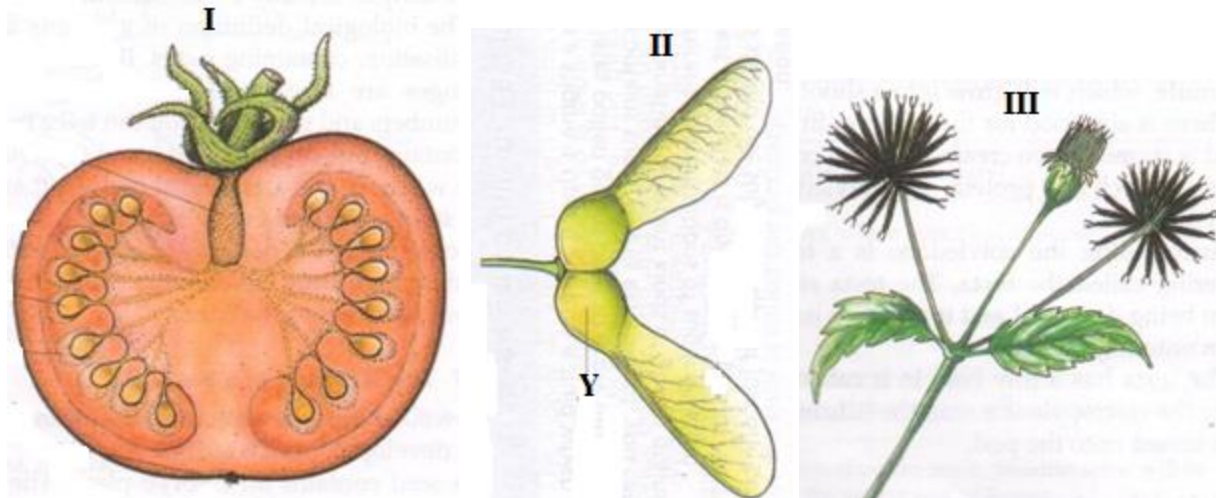
2. Use the photographs provided to answer the questions that follow:



A



B



a) (i) Identify the type of cell division represented in the photographs **A** and **B**. (2mk)

A

B

(ii) With a reason, name the stage of cell division represented in each case. (4mk)

A

Reason

.....

B

Reason

.....

(iii) Name the parts of human body where the process **B** represented above occur. (2mk)

.....

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b) (i) What type of fruit is represented by photograph **I**? Give two reasons. (3mk)

Type

Reasons.....

.....

(ii) Name the agent of dispersal for fruits **II** and **III**. (2mk)

II

III

(iii) How are the fruits adapted for the mode of dispersal stated in (b)(ii) above? (2mk)

II

.....

III

.....

(iv) Identify the type of placentation shown by photograph **I**. (1mk)

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3. You are provided with specimens labeled **L** and **M**. Study them then answer questions that follow:

a) Identify the specimens. (2mk)

L

M

b) Name the part of the body where each is found. (2mk)

L

M

c) With which bone does the vertebra **L** articulate, other than those of the vertebral column? (1mk)

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d) Using observable features only, state two adaptations of the specimen **M** to its functions. (2mk)

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e) Observe the specimen **L** from the anterior view. Name the parts of the vertebra that are most pronounced. (3mk)

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f) Name the cartilaginous pad found between two adjacent vertebrae and state its function. (2mk)

Name

Function

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