**MWAKICAN PRE-MOCK EXAM**

**FORM 4**

**231/3**

**BIOLOGY PAPER 3**

**PRACTICAL**

1. You are provided with a specimen labelled J.

(a) With reasons identify the organ of a plant represented by J. (1mk)

Reasons (2mks)

(b) Using observable features only identify the class to which J belongs.

Class (1mk)

Observable features. (1mk)

(c) In a previous experiment the lower epidermis and the upper epidermis were peel off, the number of stomata was determined using a microscope at high power objective. The results obtained are recorded in the table below.

|  |  |
| --- | --- |
| Arrange number of stomata in the field of view | |
| Lower epidemis | Upper epidermis |
| 30 | 13 |

(1) Account for the average number of stomata on the upper and lower side of specimen J.

Upper epidermis. (3mks)

Lower epidermis. (3mks)

2 You are provided with photographs of:

Specimen SI – mango fruit

Specimen T1 – Garden pen pod U

 

v

w

X

S1 TI

(a) Specimen SI was cut longitudinally. The photograph below shows one half



C

d

c

a

b

S1

(i) Name the parts labelled a,b,c,d and e (5mks)

a-

b

c-

d-

e

Study the photographs of specimen T1 and name the parts labelled u,v,w,x ,y and z  (4mks

labeled

u-

v-

w-

x-

y-

z-

(iii) Identify the type of presentation in each fruit. (2mks)

S1

T1

(b) Using observable features identify the method of dispersal for each fruit and in each care give reasons for your answer.

S1

Method of dispersal (1mk)

Reasons (3mks)

T1

Method of dispersal (1mk)

Reasons (2mks)

(c) Name the type of fruits represented by

S1 (1mk)

T1 (1mk)

(d) What is the importance of fruit and seed dispersal. (3mks)

Q3 You are provided with solution S

(a) Using the reagents provided to carry out the appropriate food tests and complete the table below. (8mks)

|  |  |  |  |
| --- | --- | --- | --- |
| Food substance | Procedure | Observation | Conclusion |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |