

Name.....Adm No.....Class.....Date.....

231/3

BIOLOGY

PAPER 3

PRACTICAL

END OF TERM 2 2022

Time: 1 Hour 45 minutes

MEC'S JOINT EVALUATION TEST

INSTRUCTIONS TO CANDIDATES

- Write your name, Admission number and class in the spaces provided
- Sign and write the date of examination in the spaces provided above.
- Answer all questions in the spaces provided in the question paper.
- You are required to spend the first 15 minutes of first hours allowed for this paper reading the whole paper before commencing your work.
- Answers **MUST** be written on the spaces provided after each question.
- Candidates may be penalized for recording irrelevant information and incorrect spelling especially of technical terms.

FOR EXAMINERS USE ONLY

QUESTION	Max Score	Candidate Score
1	14	
2	15	
3	11	
TOTAL SCORE	40	

This paper consists of 6 printed pages.

Candidates should check the question paper to ensure that all pages are printed as indicated

1. You are provided with solution W, Solid Q, Iodine solution, Benedict's solution, Hydrochloric acid and Water bath.

a) Using reagents provided carry out tests to determine the food substance present in solution W

Record the procedure, observation and conclusion in the table below

Food test	Procedure	Observation	Conclusion

6mks

b) Label three test tubes as A, B and C. Place 3ml of Solution W into each test tube. Divide solid Q into three equal portions.

To the test tube A add one portion of solid Q and shake thoroughly

To the test tube B add the second portion of Solid Q shake thoroughly and heat to boil.

To the test tube C add the third portion of solid Q, followed by 8 drops of 2M hydrochloric acid and shake to mix.

Place the three set ups into a water bath maintained at 37°C for 40 minutes.

Add equal amounts of Benedict's solution to each of three test tubes and heat to boil. Record your observation.

Set up A 1mk

B 1mk

C 1mk

Account for your observations above

3mks

c) Name any other factor that affects the reaction above.

(1mk)

d) Give a reason why temperature of the water bath was maintained at 37°C (1mk)

2. a) You are provided with Flower specimen **K**. Use it to answer the questions that follow



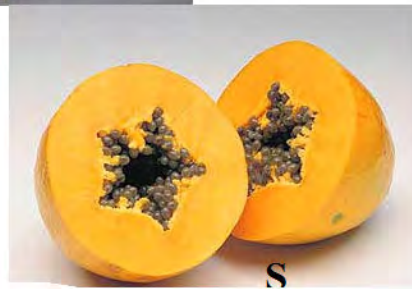
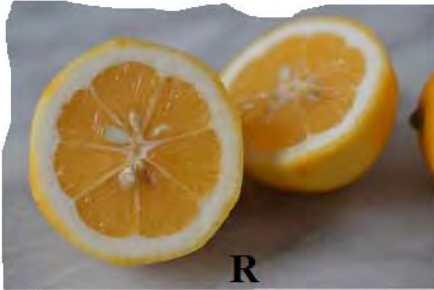
i) Name the type of gynoecium in the flower.(1mk)

ii) With a reason state the agent of pollination.

Agent of pollination.....1mk

Reason 1mk

b) The photographs labelled **Q**, **R**,and **S** are sections of some plant parts.



(i) Name the type of placentation in the specimens shown in photographs **Q**, **R** and **S**. With Reasons (6 marks)

Fruit	Placentation	Reason
Q		
R		
S		

(ii) Giving a reason in each case, name the mode of dispersal of the specimen in photograph **Q** and **S** (4marks)

Q

Mode.....

Reason

.....

S

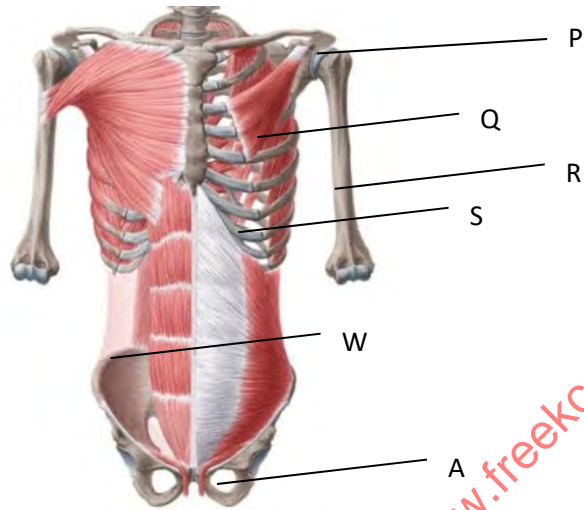
Mode.....

Reason

.....
.....

iii) What type of fruit is R .Give a reason.(2mks)

3. The diagram below represents a section of human skeleton and muscles.



a)i)Name the parts labelled :

W.....1mk

S.....1mk

R.....1mk

Q 1mk

ii) What is the significance of part A (1mk)

(iii)Describe the role of Q during inhalation. (2mks)

(iv) Name the type of muscle on the diagram above. (1mk)

v) What type of joint is at P. (1mk)

b) Name the bone that articulates with R at:

i) Proximal end (1mk)

ii) Distal end (1mk)

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END