Murang'a East Biology Pp3

Marking scheme

End term 2 2025

1.a) You are provided with specimen A

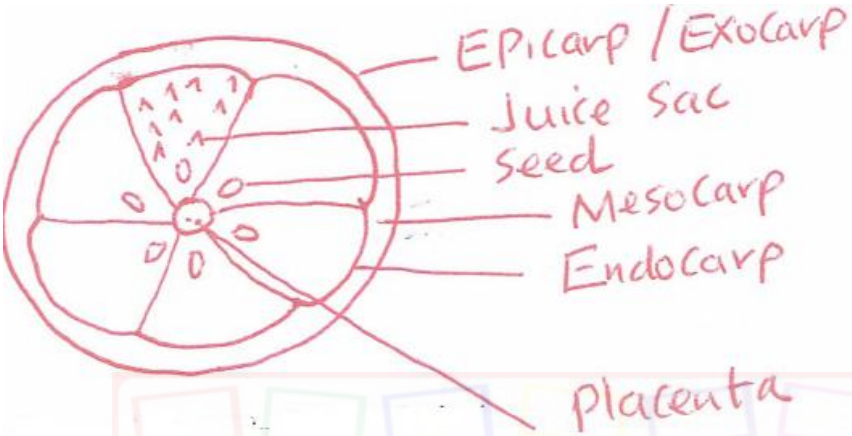
i) Name the fruit type that the specimen belongs to (1mark)

Berry;

ii) Give a reason (1mark)

It has numerous seeds embedded in a succulent endocarp

iii) Make a transverse section on specimen A and label the parts. (4marks)



iv) State the type of placentation of fruit A (1mark)

Axile; / Central placentation; Rej. Axial;

b) Squeeze out the juice from the two halves of specimen A into a small beaker. Using part of the juice and the reagents provided only, test for the food substances in the juice. (6marks)

Reagent	Procedure	Observation	Conclusion
DCPIP	**To 2ml of DCPIP, add the juice dropwise and shake;**	**DCPIP is decolourised;**	**Vitamin C present; (Ascorbic acid present);** **Rej; presence;**
Benedict's Solution	**To 2ml of the juice, add 2mls of Benedict's solution, shake to mix and heat to boil;**	**Colour changes from blue/yellow/ orange/ brown;**	**Reducing sugar present;**

c) Transfer 5ml of lime water in to a test tube. Insert a straw in the lime water in the test tube and blow air in it.

i) State the observation made (1mark)

White precipitate observed in the test tube;

ii) What was the aim of the experiment? (1mark)

To investigate the gas produced during expiration;

iii) Account for the observation (2marks)

Carbon IV oxide produced during expiration; reacted with lime water;

iv) What biological process produces the gas being tested in this experiment (1mark)

Respiration;

v) What physiological process is involved in the removal of the gas from the body. (1mark)

Diffusion;

2. A-Scapula. (3marks)
B-Humerus

C-Ulna and Radius

b)i) Ball and Sockets (2marks)

(ii) Hinge joint

c) Glenoid cavity that articulates with head of humerous. (4marks)

Has spine (increase S.A) for muscle attachment

Has flat and broad surface for muscle attachment.

Has Acromion for articulation with Clavicle /collar bone (provide support)

Has metacromion and Acromion for muscle attachment

d)(i) Olecranon process (1mark)

ii) - Prevent overstretching of the arm. (2marks)

- Muscle, tendons and ligaments attachment.

iii) Clavicle

iv) Patela

3.(a) X. -saprophytism;
Y - symbiosis;
Z - predation;

(b) (i) Fungi;
Lack chlorophyll/ green colouring matter;

(ii) Mammalia;
They have fur; Mammary gland;

Homodont dentition;

(c)

X. Breakdown of organic matter to reusable forms for plants/ recycling nutrients;

Cleans the environment by removing organic waste;

Z. Regulation of the prey population;

(d) (i) Leguminous plants;

(ii) Fixation of Nitrogen to usable/ available form to the plants;