

FORM FOUR CLUSTER KCSE MODEL 2

BIOLOGY PAPER 3 ANSWER

1. (a) Starch; (1mark) Add iodine solution to solution P; (1mark) Blue black/dark blue/ black colour; (1mark)

Starch present; (1mark)

(b) Reducing sugar; (1mark) Add Benedict's solution and boil/warm/heat/ place in a hot water bath;

(1mark) rej: without heating/warming etc.

(c) (i) Colour changes from blue to green/yellow /orange/ brown; rej Red/brick red. (1mark)

(ii) Starch in P was converted/hydrolyzed/broken down/ digested; to reducing sugar by solution

N/enzyme in N/diastase/amylase/ ptyalin in N; (2marks)

(iii) Tied to c (i)

(d) Enzymes/diastase/amylase/ptyalin/organic catalysts;

(e) To provide optimum/best/most suitable temperature for enzymes activity/enzyme in Z/diastase/

amylase/amylase; (1mark) Total 13 marks

2. (a) (i) Arthropoda; rej wrong spelling but acc correct reasons; (1mark)

(ii) Segmented bodies/body;

Jointed appendages;

Exoskeleton; acc any first two

(ii) tied to

(i) (2marks)

(b) R -Class: Insecta; rej wrong spelling (1mark) Features:

-Three body parts;

-Three pairs of legs; rej limbs

-A pair of antennae; (3marks)

S- Class: Crustacea; (1mark) Rej wrong spelling

Features:-Two body parts;

-Five pairs of legs; rej limbs (2marks) E- Class: Arachnida; (1mark) rej wrong spelling

Features:

- Two body parts; (2marks)
- Four pairs of legs; rej limbs

c)



R	S
<ul style="list-style-type: none"> - Three body parts. - Three pairs of legs. - One pair or antennae 	<ul style="list-style-type: none"> - Two body parts. - Five pairs of legs. - Two pairs of antennae.

(3marks)

(Total 16 marks)

3. (a) Kingdom : Plantae;

Reason:-Presence of cell wall;

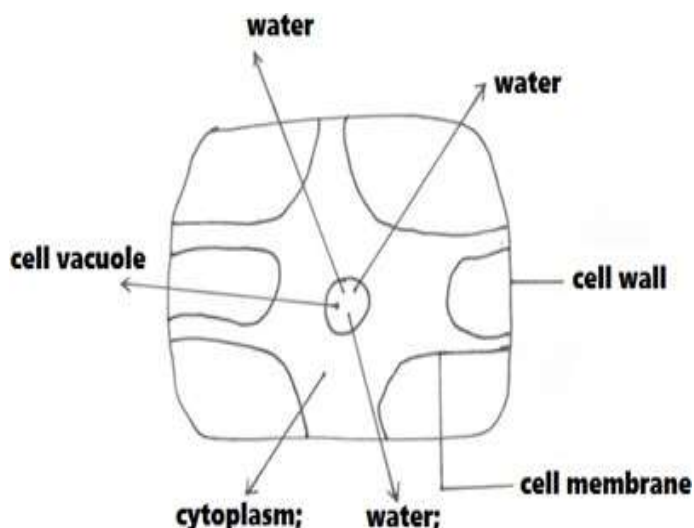
-Presence of stomata;

-Nucleus at periphery; any one (1mark)

(b) (i) To allow easy penetration of light;

(ii)To help the cells turgid; rej make it rigid wet.

(iii) To make distinct/different features more clear/distinguishable; (3marks)



-Drawing mark:

-Continuous cutline

-Cell wall shrinking

-Cell vacuole reduced in size

-Labelling

-Drawing 1 (3marks

(d) (i) K-Stoma rej stomata

(ii) L-Guard cell; rej Guardcells (2 marks)

(iii - Thick inner walls which become turgid and draw apart leaving the stomata pore /stoma open;

- Thin outer walls that bulge/expand outwards when become turgid; - Lies close in contact with

epidermal cells from which it draws water; - Any first two (Total 11 marks