

PAVEMENT FORM 4 TRIAL 1 EXAMINATION 2021/2022

Kenya Certificate of Secondary Education (K.C.S.E)

Biology paper 3

Practical

231/3

Marking schemes

- This marking scheme is an aid to teachers and students to indicate the requirements of the examination. It shows the basis on which examiners are instructed to award marks.
- All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

1. a).

Test tube	Observation at start of exp	Observation at end of expt.
1.	Blue black	Blue
2.	Blue black	Retains colour of iodine
3.	Blue black	Colour of iodine retained

1 x 6 =6 marks

b).

Test tube	Observation
1.	No colour change/ Blue colour of benedicts retained
2.	Green colour observed
3.	Yellow colour observed

1 x 3=3 marks

- c). Optimum temperature for enzymes 1 mark
- d). Control 1 mark
- e). Enzyme/ starch digesting enzyme/diastase 1 mark
- f). Starch was not broken to reducing sugar due to lack of NaCl and solution L
 There is more reducing sugar in 3 than in 2 due to higher conc; of NaCl in test tube 3. NaCl accelerates digestion of starch. 3 marks

2. a). i). - head; thorax; abdomen;
 ii) - arthropoda;
 iii). List **three** characteristics found in members belonging to the phylum of specimen **R** only. (3 marks)
- b). - insecta;
- c). - **R** has wings while **T** lack wing; R
3. a) **A1 – solitary**

B1 – Inflorescence

b)

	Class	Reason
A1	Dicotyledonae	Has four petals
B1	Monocotyledonae	Has three stamens

c) **S – Petal. . T- Sepal, Accept Calyx**

d) **Type – superior;**

Reason – above receptacle;

e) i) **Wind;**

ii) **Feathery stigma; (to increase surface area for trapping pollen grains from the air)**

iii) **Small, light pollen grains-**

Flower not scented;

- Inconspicuous flower; Mark first 2

f) i) **Insects**

ii) **Tubular/ bell shaped corolla**

Accept large petals

g) **Animal**