BIOLOGY PAPER 3 FORM 3 MARKING SCHEME

Food substance	Procedure	Observation	Conclusion
Starch	To a little of substance L in a test tube, add a little iodine	Blue-black colour forms	Starch present;
Reducing sugar	To a little of substance L in a test tube add equal amount of Benedict's solution and heat to boil.	Colour remains blue	Reducing sugars Absent
Proteins	To a little L,add a little sodium hydroxide followed by a little copper(II) sulphate solution and shake the mixture.	Purple colour forms	Protein present;

(9mks)

a)Animal	Steps followed	Identity
E	1b,2a;	Mollusca
F	1b,2b,3a,4a,6a,7b;	Crustacea;
G	1b,2b,3a,4a,6b,8a;	Arachnida;
H	1b,2b,3a,4b,5a;	Annelida;
J	1a,9a;	Cestoda;

½mk

b.i) Phylum: Arthropoda(1mk)
Class:Insecta (1mk)

ii) Has three body parts;
- Has three pairs of legs
- Has one pair of wings;
- Has one pair of antennae; max 3mks

c.i) Presence of legs that walk on contaminated surfaces;

Presence of wings that facilitate movement to and from contaminated surfaces;

Hairly body on which disease causing microorganisms attach;

Has a proboscis to suck /contaminate food; any 2 (2mks)

ii) Cholera/dysentery(1mk)

iii) Covering food;

Proper disposal of waste /rubbish;

Eradication of houseflies using insecticides; any 2 (2mks)

The photographs below were taken from a grassland ecosystem. Examine the carefully

i) Construct a food chain from the organism in the photographs above. (1mark)

Grass ⟶ Antelope ⟶ Lion

ii) Name the trophic level occupied by the antelope giving a reason for your answer. (2 marks)

Primary consumer; is herbivore that feeds on grass(producer)

iii) Using observable feature only, name the class in which lion and antelope belong giving a reason. (2 marks)

Class; Mammalia

Reasons

Body covered with fur

Has ear pinna

iv) With a reason, identify which of the three organisms has the highest biomass.

(2 marks)

Grass; are the producers and have the highest amount of organic content.