FORM FOUR EXAMINATION PAPER 231/3

PRACTICAL. MARKING SCHEME

1.

Food substance	Procedure	Observation	Conclusion
Starch	To a little of substance L in a test tube,add a little iodine	Blue-blackcolour 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 littlesodium hydroxide followed by a little copper(II) sulphate solution and shake the mixture.	Purple colour forms	Protein present;

(9mks)

2. 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)

3. a)
Magnification – 1mk.
Each correct label-½ mk.
Correct drawing (1mk)
b) Class: Dicotyledonae;(1mk)
Reason :Has two cotyledons has network veins /has at a tap root system.(1mk)

c)

Structure in S_1	**Structure in S_2**

Plumule Radicle Cotyledon	Stern system /shoot Root system; Seed leaf

Max 2

d.i) S_1 – Epigeal (1mk)
ii) S_3 – Hypogeal (1mk)
d.ii)

S_1	S_3
-Cotyledons pushed above the ground -Hypocotylelongates	-Cotyledons remain in the soil -Epicotyl elongates

2mks

iii)S_1- has little food store; hence leaves develop early to start photosynthesis ; (2mks)

S_3- has a lot of food stored; which is enough for early growth, hence no need for early photosynthesis ;(2mks)