Murang’a East Biology Paper 3 Practical Marking Scheme

1. (a) Specimen **A**. Type of germination: Hypogeal;

Reason: Cotyledons remain underground during germination;

Specimen **B**. Type of germination: Epigeal;

Reason: Cotyledons raised above the ground level during germination;



Drawing 1 mark(Check Accuracy /continuous outline/proportionality); Labelling 4 marks

(c) Specimen **A**. Class: Monocotyledonae;

Reason: Leaves have parallel venation; one cotyledon/seed leaves; Fibrous root system; **Any one**

Specimen **B**. Class: Dicotyledonae;

Reason: Leaves have network /reticulate venation; two cotyledons/seed leaves; Tap root system; **Any one**

2.a) 5mks



**Magnification between X1 and X5**

b) Type of fruit **Berry** 1mk

Reason **has many seeds** 1mk

c.)

Agent **Animal** 1mk

Reason **brightly coloured; scented; fleshy; large; first** 2mk

d)**Axile;** 1mk

**e)Ethylene/ ethyne**; 1mk

3.

|  |  |  |  |
| --- | --- | --- | --- |
| Food substance | Procedure  | Observation  | Conclusion  |
| starch  | To $1cm^{3}$ of the solution add 2 drops of iodine solution 1 | Iodine colour is retained 1  | Starch absent 1 |
| Protein  | To $1cm^{3}$ of the solution add an equal amount of sodium hydroxide followed by 2 drops of $CuSO\_{4}$ 1  | Purple colour 1 | Proteins present 1  |
|  |  |  |  |

b)Proteins present because their digestion is incomplete;

no starch because it has been digested/hydrolyzed into reducing sugars; max 2 mks

c)Inner surface has finger- like projections therefore it is rough and waxy; slimy/mucus; max 2mks

d) Finger-like projections are villi which increase surface area for absorption of digested food;

mucus/slimy to prevent it’s wall from being digested by digestive enzymes;mucus lubricates the food;max 2mks