



Atika School

Free Online Academy

BIOLOGY PP3 MS

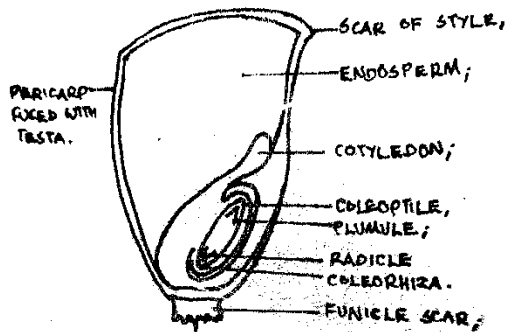
1a)

Specimen P	Specimen Q
-Has two scars	-Has one scar
-Has one cotyledon	-Has two cotyledons
-Has Food stored in endosperm	-Stores food in cotyledons.

b) P- Ovary;

Q- Ovule;

ci)



D-1mk

L- 1X3= 3mks N/B Mark first 3 labels clockwise.

ii) -Endosperm- Storage of food;

-Embryo (plumule and radicle)- Develops into shoot and roots;

-Testa – Protects inner delicate parts/embryo;

- Coleoptile – Protects plumule from mechanical damage during germination;

d)

Test	Procedure	Observation	Conclusion
Starch	To 2ml solution Q, Add 3drps of Iodine solution;	Blue black colour ;	Starch present;
Protein	To 2ml solution Q, Add equal amount of sodium hydroxide. Add Copper(II) sulphate drop by drop;	Colour changes to purple/violet/mauve;	Proteins present;

2 ai) Touch;

ii) Positive phototropism;

iii) Place the potted plant on a revolving klinostat in a similar set up.

b) When the tendril comes into contact with the upright firm support; auxins migrate to the opposite side/side away from touch;

This causes faster cell growth/ cell elongation on the side away from the contact/OR causes

Slower growth on the side in contact with the firm support; and the tendril coils round the support;

ci) **K1**- It offers support to the non-woody stem/plant;

K2- The plant shoot grows towards the source of light in order to photosynthesize;

3a) S- Larva;

bi) Preceding stage -Larva;

- Succeeding stage- Pupa;
- ii) Complete metamorphosis;
 - c) – Tracheal system;
 - Presence of spiracles;
 - di)- Vegetation/ plant material;
 - Has biting mouth parts;
 - ii) It undergoes re-organization of body tissues to form the adult form (ie metamorphosis);
 - iii) – Has wings for flight;
 - Has jointed legs for walking/crawling;
 - ei)- Stimulates shedding of the larval cuticle while retaining the youthful characteristics/ prevents metamorphosis;
 - ii) Stimulates shedding of the adult cuticle/moulting in adult;