

1. Reproduction in Lower and Higher plant.

Section A

Q.1] In ovule meiosis occurs in -----
→ c] Megaspore mother cell.

Q.2] Find odd one
→ Micropyle

Q.3] What is the function of Filiform apparatus?

→ The function of Filiform ~~plasma~~ The function of Filiform ~~plasma~~ apparatus is to guide entry of pollen tube & release of sperm cells.

Q.4] Define pollination,

→ The transfer of pollen to a stigma, ovule, flower, or plant to allow fertilization.

Section B

Q.5] Write difference between Asexual & sexual reproduction.

Asexual reproduction

- Asexual reproduction - one parent is involved.

- New generation is identical or true copy of the parent.

- Original parent disappears after reproduction.

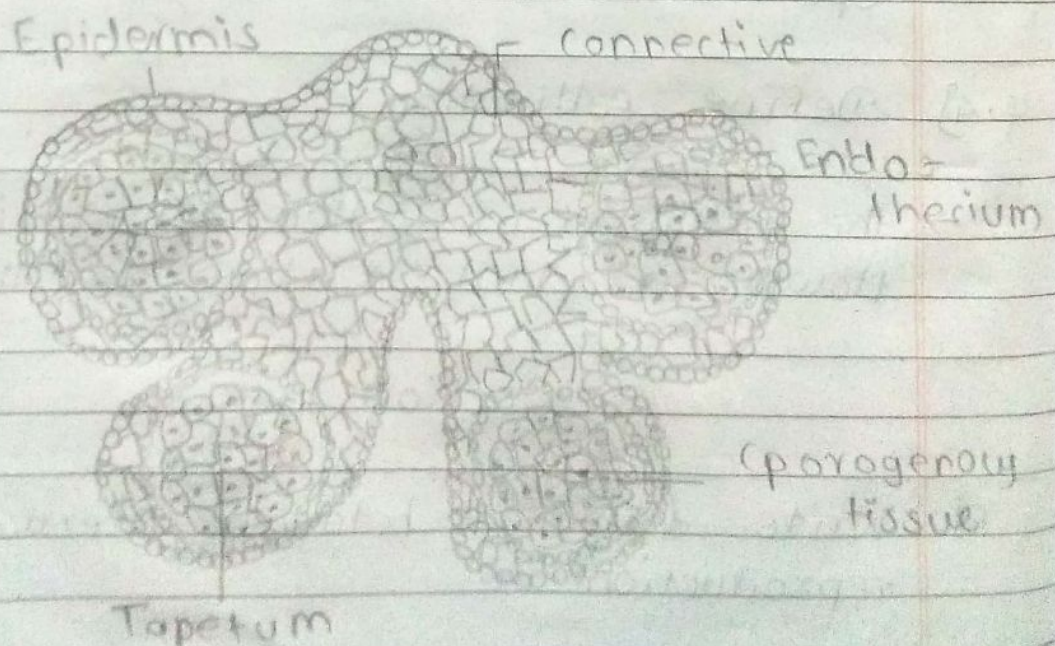
Sexual reproduction

- two parents are involved.

- New generation of similar to its parents.

- original parents remain alive after reproduction.

Q. 6] Draw a neat labelled diagram of TS. of anther.



q.7] Write floral adaptation in entomophilous flower.

- Entomophilous flower show some specific adaptation.
- They are brightly coloured to attract insects. They bear nectaries that in produces nector which is Fed upon by insects.
- They have sticky pollens and sticky stigma. so that it easily stick to the Feet of the insect.

q.8] Incompatibility is a natural barrier in the fusion of gametes. How will you explain this statement.

- Nature has developed both structural as well as chemical barriers which restrict Fertilisation in organisms.
- Chemical incompatibility of pollen prevents Fertilization between unrelated plant species.

q.9] How polyembryony can be commercially exploited?

- Polyembryony may be defined as the occurrence of two or more embryos in one ovule which consequently results in the

emergency of multiple seeding. It can be commercially explained as disease free plants can be obtained by this method & it also increases the probability of survival under varied conditions.

Section C

Q.9] Write answer of the following.

Q.10] Explain steps of endospermic detail.

- The endosperm is a tissue produced inside the seed of most of the flowering plant following fertilization. It is triploid in most species.
- It surrounds the embryo and provides nutrition in the form of starch through it can also contain oils & protein.
- This can make endosperms of source nutrition in animal diet.
- Other example of endospermis that forms that form the edible portion are coconut.

Q.11] Explain self pollination in detail with example.

- The transfer of pollen from the anther

of the flower to the stigma of the same flower or sometimes to that of a genetically identical flower.

- Self-pollination is when pollen from the same plant arrives at the same stigma of a flower or at the ovule.
- There are 2 types of self-pollination. In autogamy, pollen is transferred to the stigma of a same flower.
- Geitonogamy, pollen is transferred from the anther of the flower to the stigma of another flower.

Section : D

Answer the following:

Q.12] What is fertilization? Explain process of double fertilization.

- The process of fertilization in an egg or a female animal or plant, involving the fusion of male & female gametes to form a zygote.
- Double fertilization involves two sperm cells; one fertilizes the egg cell to form the zygote, while the other fuses with the two polar nuclei that form the endosperm.
- After fertilization, the fertilized ovule

ovule from a seeds while the tissue of the ovary become the fruits.