Practical No. 3

Aim : To study the reproductive system in Hibiscus flower.

Apparatus : Hibiscus flower, forcep, blade, simple microscope, etc.

Figure : (Label the following diagram.)

Procedure :

1. Observe the Hibiscus flower and note down its whorls.
2. Separate androecium and gynoecium by removing sepals and petals.
3. Take a longitudinal section from stigma to ovary with the blade.
4. Observe anthers in the same way.

Observation :

Whorl	Number of components	Structure	Function
Calyx	Five	Green sepals	To make flower green protect ovary
Corolla	Five	different petals	to coloured flower
Androecium	Innumerable stamens	Anthers	To produce pollen grains
Gynoecium	Five carples	Stigma, style, ovary	For fertilization

Inference / Conclusion :

1. Androcium ..... from flower is male whorl, while Gynoecium ..... is female whorl.
2. Male gamete from pollen grain and egg cell from ovule, these two haploid cells unite to form a diploid zygote. Thus the process of seed and fruit formation begins.
3. Flower is the reproductive organ of plants.

Multiple Choice Questions

1. ..... and ..... are the essential whorl.
   a. Calyx b. Corolla c. Androecium d. Gynoecium
2. ..... is not unisexual flower.
   a. Coconut b. Papaya c. Gulmohar d. Water-melon
3. The process of union of male gamete with egg cell is called .....
   a. fertilization. b. pollution. c. double fertilization. d. germination.
4. Second male gamete unites with two polar nuclei to form .....
   a. zygote. b. embryo. c. embryo sac. d. endosperm.
5. After fertilization ..... develops into seed and ..... into fruit.
   a. endosperm b. ovary c. embryo sac d. egg cell

: Exercise :

1. Seeds of some plants don't germinate. How are their next genetation formed?

same plants don't germinate.
At that time we use the methode of asexual reproduction in plant, known as 'Vegetative propogation'
By using this method, Plants stem, leaves or any part of this plant is kept in soil, then the next generation is produced of that species.

2. What are the artificial methods of vegetative reproduction in plants? Give examples.

In plants, from the leaf, stem and root the vegetative propagation is accured.
The sugarcane, potatoes, Bryopyta are some examples of this methods.

3. Why does hibiscus not bears fruits even though androecium and gynoecium present in it?

Hibiscus can not bears fruits even though androecium and gynaecium present in it because the avele transfer into seed but the ovary does not converts into fruit.

4. Why do androecium and gynoecium of same flower matures at different time?

Androecium and gynoecium of same flower matures at different time because thy are part of flower and mature with there specific condition only with respect to their food.

Remark and Signature