**SYMBIOSIS SCHOOL, NASHIK**

**STD : X TERM I (2020-210**

**SUB : BIOLOGY L.NO 8 HOW DO ORGANISMS REPRODUCE**

**Concepts :** **1. Sexual reproduction in flowering plants**

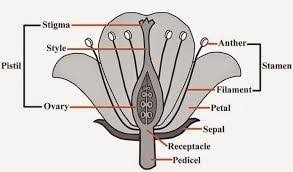
**2. Reproduction in human beings - Changes during adolescence**

**Male & female reproductive system**

**3. Reproductive Health - STDs , Birth control methods**

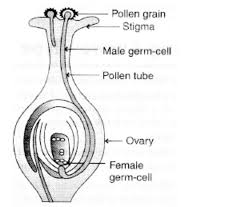
1. Draw a neat labeled diagram of L.S of flower

Ans.



2. Draw a neat labeled diagram of germination of pollen tube on stigma.

Ans.



3. Explain male reproductive system with the help of neat labeled diagram .

Ans. The male reproductive system consist of following organs :

**1. Testis :** i) Produce male gametes called sperms

ii) Secrete hormone testosterone

**2. Vas deferens :** Carry sperms

**3. Urethra :** Common passage for urine and sperms

**4. Penis :** Transfers sperms into female body

**5. Prostate gland & Seminal vesicles :** Secrete fluids that provide nourishment and motility to the sperms

Fig. from textbook

4. Explain female reproductive system with the help of neat labeled diagram .

Ans. The female reproductive system consist of following organs :

**1. Ovary :** i) Produce female gametes called eggs

ii) Secrete hormone estrogen

**2. Oviduct/Fallopian tube :** i) Carry eggs

ii) Fertilization occurs

**3. Uterus :** Development of the baby occurs.

**4. Vagina :** The passage through which baby is born

Fig. from textbook

5. Why does menstruation occurs?

OR

What happens when the egg is not fertilized?

Ans. i) On reaching puberty, ovary produce one egg every month. So uterus also prepares itself every

month to receive the embryo if the fertilization occurs.

ii) Its inner lining becomes thick and spongy. It develops blood vessels. This is required to nourish the

embryo.

iii) If fertilization does not occur, the thick lining is no longer required. So it breaks and comes out of vagina

as blood and mucus.

iv) This phenomenon is called menstruation. It lasts for 2-8 days.

6. How does the embryo gets nourishment inside the mother’s body?

Ans. i) The embryo gets nutrition from the mother’s blood with the help of special tissue called placenta. This is

a disc which is embedded in the uterine wall.

ii) It contains villi on the embryo’s side. On the mother’s side are the blood spaces which surround the villi.

This provides the large surface area for the glucose and oxygen to pass from mother to the embryo .

7. How is process of pollination different from fertilization?

Ans.

|  |  |  |
| --- | --- | --- |
|  | **Pollination** | **Fertilization** |
| 1. | It is the transfer of pollen grains from the anther to the stigma of the flower. | It is the fusion of male and female gametes to produce zygote. |
| 2. | It occurs only in flowering plants. | It occurs in both plants and animals |
| 3. | It occurs before fertilization | It occurs after pollination |

8. What are the advantages of sexual reproduction over asexual reproduction?

Ans. The advantages of sexual reproduction are as follows :

i) It produce more variations.

ii) Increased variations help the organisms to survive better.

iii) Sexual reproduction maintains vigour and vitality.

iv) Harmful traits are often kept suppressed.

v) Lethal genes get eliminated.

vi) Variations help in evolution.

9. What are different methods of contraception/birth control?

Ans. Different methods of contraception/birth control are as follows :

**i) Barrier mehod :** A physical barrier is created so that the sperms do not enter the female body.

Eg - **condoms**

**ii) Hormonal method :** The hormonal balance in the female body is changed so that the egg is not

produced. Eg - **oral pills**

**iii) Use of Intra Uterine Contraceptive Devices(IUCDs) :** Presence of any foreign body in the uterus

prevents implantation.

Eg - **Copper T , loop**

**iv) Surgical method :** In males , small portion of vas deferens is cut and loose ends are tied.

It is called **vasectomy**. It prevents the passage of sperms.

In females , small portion of vas deferens is cut and loose ends are tied.

It is called **tubectomy.** It prevents the passage of eggs.

10. What could be the reasons for adopting contraceptive methods?

Ans. The reasons for adopting contraceptive methods are :

i) Couple may not be prepared to have children (physical, mental, economical)

ii) To have less number of children.

iii) To have proper age gap between two children.

iv) To prevent adverse effect on women’s health due to continuous pregnancies.

v) To control the population.