

15.10.19

Chapter-10

Reaching the Age of Adolescence

NOTES :-

Adolescence :-

The period of life, when the body undergoes changes, leading to reproductive maturity is called adolescence.

Adolescent :-

The person undergoing the age of adolescence is called adolescent.

Puberty :-

The age at which the production of sex hormones and sex gametes begins and a boy or a girl becomes sexually mature to reproduce is called Puberty.

Primary Sexual characters:-

The Sexual characters that are present since birth are called primary sexual characters.

Secondary Sexual characters:-

The Sexual characters that are controlled by hormones and distinguish between sexually mature males and females but are not involved in reproduction are called secondary sexual characters.

Hormones:-

Hormones are chemical substances that co-ordinate the activities of organisms and their growth.

They act as messengers of the body. So, they are termed as chemical messenger of the body.

Menstrual cycle:-

The sexual cycle in females is called menstrual cycle.

Ovulation :-

The release of ovum from the ovary is called ovulation.

Menstruation :-

The thick and soft inner lining of uterus along with the blood and the dead ovum comes out of the vagina in the form of bleeding called menstruation.

Menarche :-

The first menstrual flow that begins at puberty in women is called menarche.

Menopause :-

The stoppage of menstrual flow at the age between 45 to 50 years in females is called menopause.

Metamorphosis :-

The transformation of a larva into an adult through drastic changes is called metamorphosis.

Short Answer Type Questions { I & II }

1. Why is thyroxine necessary for metamorphosis?

Ans. Thyroxine is necessary for metamorphosis because metamorphosis in frogs is controlled by thyroxine hormone.

2. How does AIDS spread?

Ans. AIDS spreads in following ways:-

1. Through the use of infected needles for injections.
11. Through sexual contact with HIV infected person.

3. What is meant by puberty?

Ans. The age at which the production of sex hormones and sex gametes begins and a boy or a girl becomes sexually mature to reproduce is called puberty.

4. What is the difference between menarche and menopause?

Ans.

25 Menarche:- The first menstrual flow that begins at puberty in women.

Menopause:- The stoppage of menstrual flow at the age between 45 to 50 years in females.

5. Give any one harmful effect of drugs.

Ans. Drugs damage the nervous system and other organs of the body.

6. Why do adolescents get acne and pimples on the face?

Ans. Due to the increased activity of sweat and sebaceous glands, the secretion of sweat and oil increases and adolescents get acne and pimples on the face.

7. What are Hormones? How does the endocrine system function?

Ans. Hormones are chemical substances that coordinate the activities of organisms and their growth.

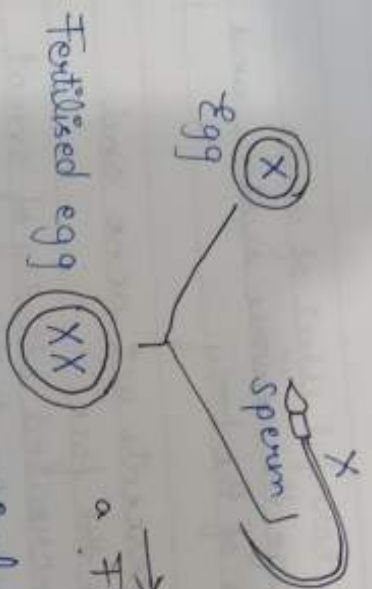
Function of Endocrine system :-

i. Endocrine glands release hormones directly into the bloodstream.

ii. Hormones are transported by the blood circulation.

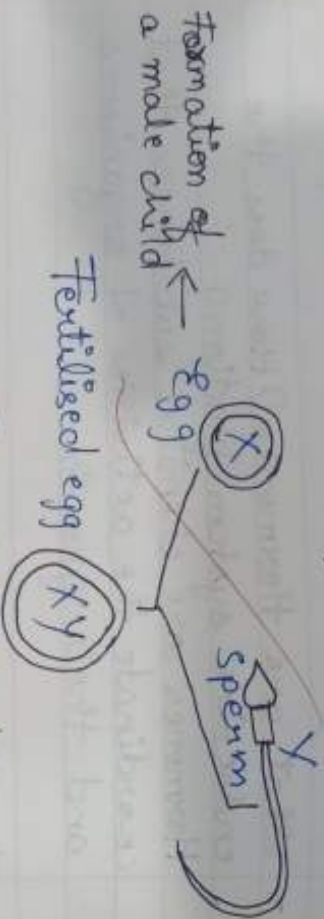
iii. Hormones are chemical messengers that carry information and instructions.

Formation of Female child



Becomes a girl

Formation of Male child



Becomes a boy

Long Answer Questions:-

1. How is sex determined in human beings? Explain with the help of a flow chart.

Ans. Sex in human beings is determined by Chromosomes. They are represented as X and Y chromosomes.

* Sex chromosomes in females are represented by XX

* Sex chromosomes in males are represented by XY

- female child would develop when by both male and female give X chromosome is given.
- Male child would develop when by male Y chromosome and by female X chromosome is given.

2. Give the location and function of pituitary, thyroid, pancreas and adrenal glands.

S.No.

Ans. 1. Pituitary

Location

Function

located at the base of the brain

Controls overall growth of body.

Stimulates the rate of cellular oxidation

of carbohydrate, protein and fats.

lowers the blood sugar level

3. Pancreas

located below the stomach

lowers the blood sugar level

S.No.	Glands	Location	Function
3.	Adrenal Glands	Located on the top of each kidney in pairs	Controls emotions like fear & anger, regulates the blood pressure and heartbeat

3. What are secondary sexual characters? List the secondary sexual characters in males and females.

Ans. Secondary sexual characters:- The sexual characters that are controlled by hormones and dis

In Males:-

- i. Testes starts producing sperms.
- ii. Chests and shoulders broaden.
- iii. Hair grows under armpits and pubic regions.
- iv. Heavier skull and bone structure.
- v. Voice deepens due to the growth of voice box.

In Females:-

- i. Ovaries starts to release eggs.
- ii. Menstrual cycle or Monthly period starts.
- iii. Hair grows under armpits and pubic regions.
- iv. Development of breasts takes place.
- v. A high-pitched voice develops.