



6. What are sex hormones? Why are they named so? State their function.

Answer:

Sex hormones are the hormones that control the development of secondary sexual characteristics and also regulate the proper functioning of the sex organs. They are named so because they are produced in both males and females by the respective sex organs under the influence of the pituitary gland.

Functions of sex hormones:

- Testosterone: This hormone brings about secondary sex characters in boys such as the growth of a beard, the voice becoming hoarse, development of reproductive organs, etc.
- Oestrogen: This hormone is responsible for the development of secondary sexual characters in females such as the enlargement of breasts, development of female reproductive organs, etc.

7. Choose the correct option.

(a) Adolescents should be careful about what they eat, because

(i) proper diet develops their brains.

(ii) proper diet is needed for the rapid growth taking place in their body.

(iii) adolescents feel hungry all the time.

(iv) taste buds are well developed in teenagers.

Answer: (ii) proper diet is needed for the rapid growth taking place in their body.

(b) Reproductive age in women starts when their

(i) menstruation starts.

(ii) breasts start developing.

(iii) body weight increases.

(iv) height increases.

Answer: (i) menstruation starts.

(c) The right meal for adolescents consists of

(i) chips, noodles, coke.

(ii) chapatti, dal, vegetables.

(iii) rice, noodles and burger.

(iv) vegetable cutlets, chips and lemon drink.

Answer: (ii) chapatti, dal, vegetables.

8. Write notes on -

(a) Adam's apple: The protruding part of the throat is called Adam's apple. It is the enlarged voice box or larynx which gets enlarged and visible from outside in boys at the onset of puberty. This makes the voice of boys hoarse.

(b) Secondary sexual characters: These are features that help in distinguishing the male and the female body from each other. They are physical or behavioural characteristics that appear in humans at the time of puberty.

Secondary sexual characters in boys:

- Appearance of moustache and beard.
- Appearance of chest hair.

- Growth of hair in genital area and other parts of the skin.

Secondary sexual character in girls:

- Increase in breast size and darkening of the skin of nipples present at the tip of the breasts.
- Growth of hair in genital area and other body parts.
- Sex determination in the unborn baby.

(c) Sex determination in an unborn baby: Sex of a unborn baby depends upon the pair of sex chromosomes that are present in the cells of the baby. The two sex chromosomes are X and Y. The unfertilised egg always has one X chromosome. But sperms are of two kinds. One kind has an X chromosome, and the other kind has a Y chromosome.

- If both the chromosomes are X then the baby is girl.
- If one of the chromosomes are X and the other is Y then the baby is boy.

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