

## Very Short Answer Questions

**Q. 1. Name the hormone that is released by testes at the onset puberty.**  
[NCERT Exemplar]

**Ans.** Testosterone

**Q. 2. Name the female hormone produced by ovaries that helps in development of mammary glands.** [NCERT Exemplar]

**Ans.** Estrogen

**Q. 3. Which gland is called the master gland?**

**Ans.** Pituitary gland

**Q. 4. What do you mean by the term menarche?**

**Ans.** The first menstrual flow begins at puberty is termed as menarche.

## Short Answer Questions

**Q. 1. Mention any two features that are seen in boys and girls each to distinguish them from each other at puberty. [NCERT Exemplar]**

**Ans. Two features seen in boys at puberty are:**

- a. Growth of facial hairs.
- b. Voice becomes hoarse.

**Two features seen in girls at puberty are:**

- a. Development of breasts.
- b. Region below the waist becomes wider.

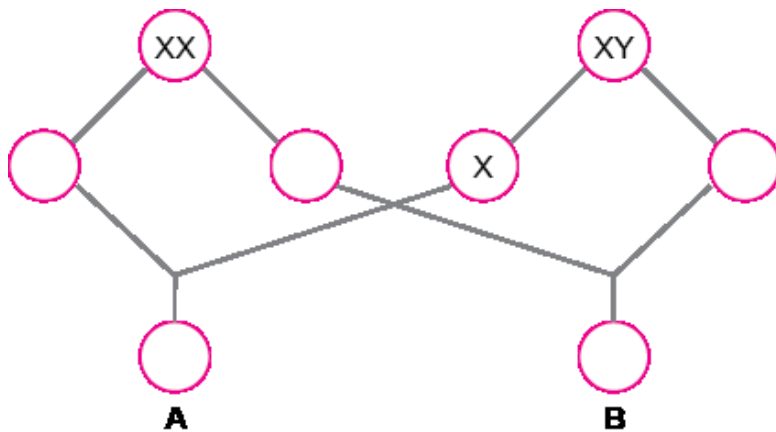
**Q. 2. We should avoid taking medicines/drugs unless prescribed by a doctor. Give reasons. [NCERT Exemplar]**

**Ans.** Several medicines have adverse side effects and have specific dosage levels which if not followed may harm the body. Drugs can be addictive too and can ruin our health and happiness.

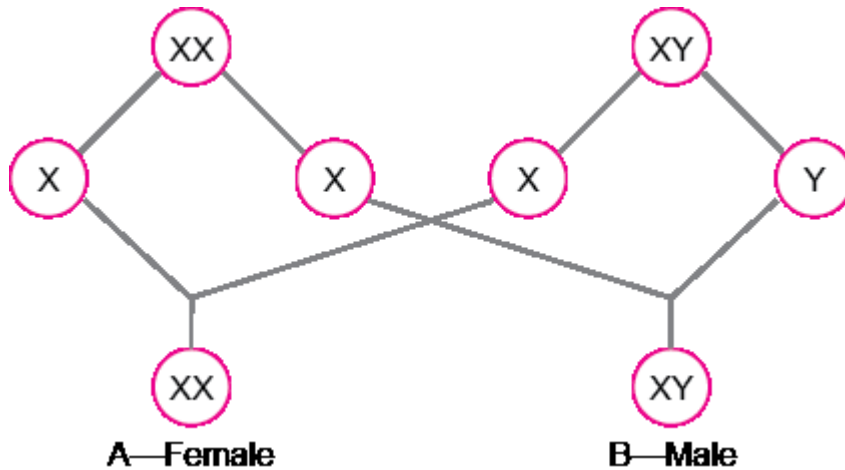
**Q. 3. A few of Paheli's classmates eat potato chips and burgers regularly during the recess at school. Are they healthy eating habits? Give reasons. [NCERT Exemplar]**

**Ans.** No. They are not healthy eating habits because potato chips and burgers have very little nutritional value.

**Q. 4. Fill the blank circles in figure and identify the sex of child A and B. [NCERT Exemplar]**



Ans.



**Q. 5. What is menstruation? Explain. [NCERT Exemplar]**

**Ans.** Menstruation is the process of the shedding of the uterine lining on a regular monthly basis. It begins at puberty and is the reproductive cycle of the female body. Every month, the uterus prepares itself to receive a fertilised egg. Therefore, the inner lining of the uterus becomes thick and is supplied with blood to nourish the embryo. If the egg is not fertilised, then the lining of the uterus breaks down and gets released in the form of blood through the vagina. This lasts for about two to eight days. This cycle occurs every month and is known as the menstrual cycle.

**Q. 6. Name the hormone which would be released during the following situations: [NCERT Exemplar]**

- (i) A frightened person
- (ii) Growth of a child to adult
- (iii) Development of caterpillar to moth
- (iv) Development of tadpole to frog

**Ans. (i)** Adrenaline

**(ii)** Growth hormone

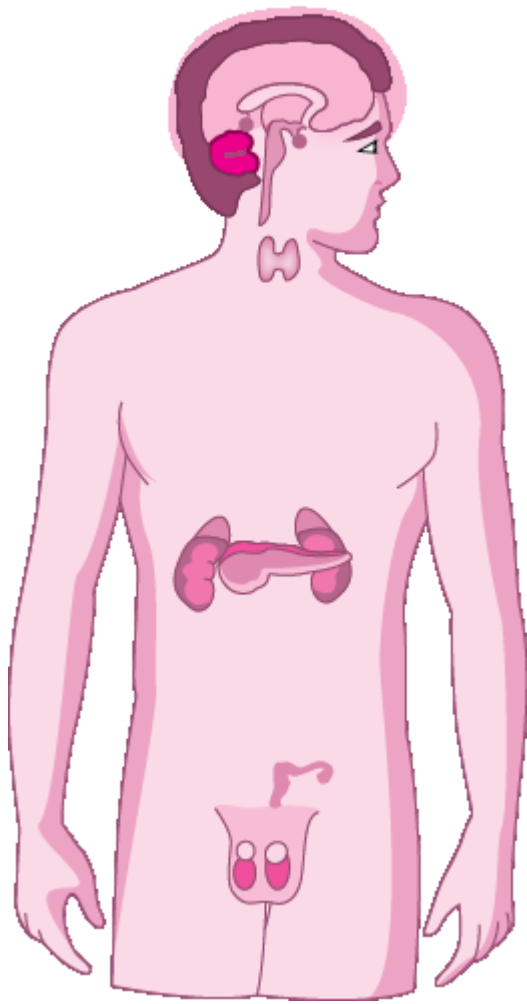
**(iii)** Insect hormones

**(iv)** Thyroxine

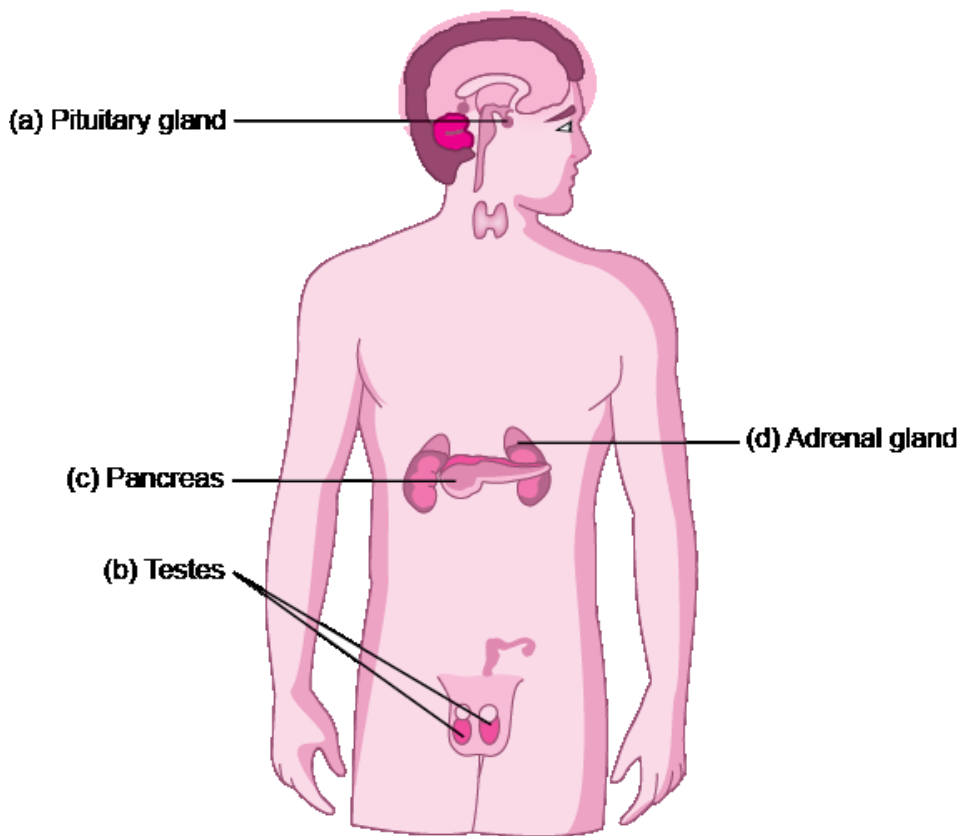
**Q. 7. In the figure given below mark the positions of the endocrine glands which release the hormones that [NCERT Exemplar]**

- a. Controls the release of sex hormones.
- b. Is responsible for the secondary sexual characters in boys.

- c. Prevents diabetes.
- d. Maintains the correct salt balance in the blood.



**Ans.**



**Q. 8. Salma had a very soft and smooth skin during her childhood. As she entered adolescence, she developed pimples on her face. The skin specialist advised her to wash her face at regular intervals. Can you explain the reasons for the appearance of pimples on her face and suggest ways to prevent them?**  
**[NCERT Exemplar]**

**Ans.** During adolescence, the secretion of sweat glands and sebaceous glands increases leading to formation of acne and pimples. Regular face wash keeps the face clean and dry and helps to reduce the pimples.

**Q. 9. Give a suitable word for each of the following statements. [NCERT Exemplar]**

- (i) The site which responds to a hormone
- (ii) Name of a gland which transports secretions through ducts
- (iii) Chemicals which control changes at adolescence stage
- (iv) It marks the beginning of reproductive period

**Ans. (i)** Target site  
**(ii)** Sweat glands/salivary glands/oil glands (any one)

**(iii)** Hormones

**(iv)** Puberty

## Long Answer Questions

**Q. 1. During adolescence, the body of boys and girls undergoes certain changes. Given below are a few of those changes. [NCERT Exemplar]**

- a. Broad shoulders
- b. Wider chests
- c. Wider region below waist
- d. Growth of muscles
- e. Development of mammary glands
- f. Growth of facial hair
- g. Acne and pimples on face
- h. Development of sex organs
- i. High-pitched voice
- j. Growth of pubic hair

**Categorise these changes into those that occur in boys and those that occur in girls.**

**Ans.**

Body changes during Adolescence	
Boys	Girls
Broad shoulders	Wider region below waist
Wider chests	Development of mammary glands
Growth of muscles	Acne and pimples on face
Growth of facial hair	Development of sex organs
Acne and pimples on face	High-pitched voice
Development of sex organs	Growth of pubic hair
Growth of pubic hair	

**Q. 2. Given below are certain food items required for proper nourishment of adolescents. Name the nutrients present in the food items and write their functions. [NCERT Exemplar]**

S No.	Food Items	Major Nutrient	Functions
1.	Pulses and nuts		
2.	Oranges and amla		
3.	Sugar, roti		
4.	Oils		
5.	Vegetables		

**Ans.**

S. No.	Food Items	Major Nutrient	Functions
1.	Pulses and nuts	Proteins	Growth, repair of body cells
2.	Oranges and amla	Iron and Vitamins	Formation of blood keeps the body healthy
3.	Sugar, roti	Carbohydrates	Provide energy
4.	Oils	Fats	Provide energy
5.	Vegetables	Vitamins and Minerals	Keep the body healthy

**Q. 3. In human females, each time during maturation and release of egg the inner wall of uterus thickens. Is this thickening permanent? Give reasons. [NCERT Exemplar]**

**Ans.** No, this thickening of the uterine wall is not permanent. If the egg gets fertilised, it starts developing and gets embedded in the uterine wall resulting in pregnancy. During pregnancy no more eggs are released and the thickened lining is discharged only when the baby is born. However, if fertilisation does not occur, the released egg and the thickened lining are shed off resulting in menstruation.

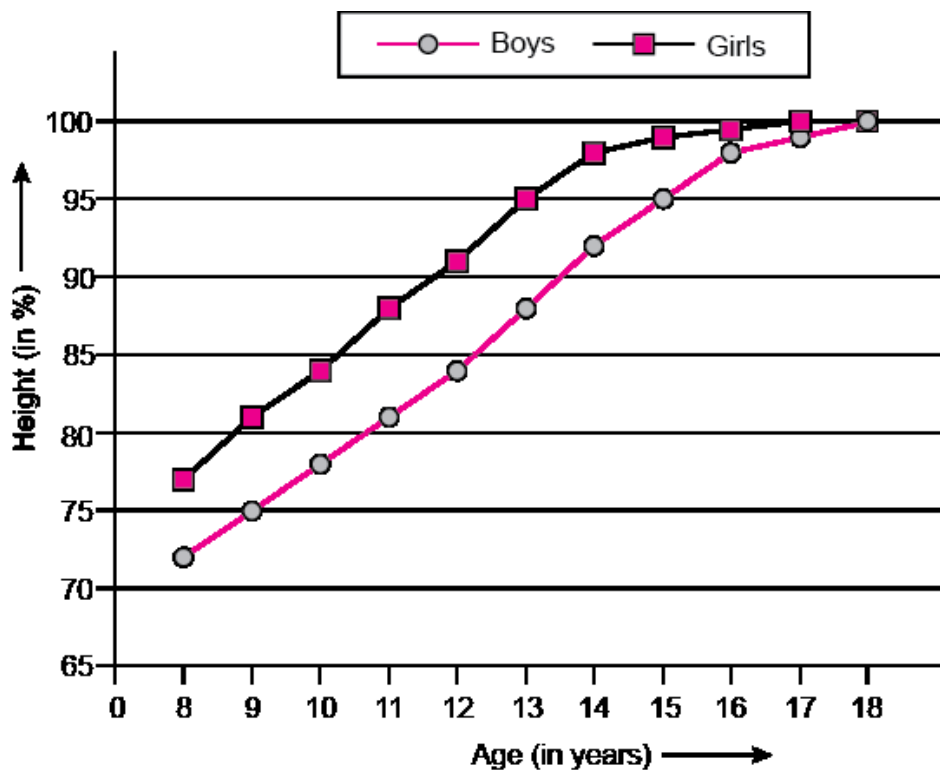
**Q. 4. John and Radha were classmates since childhood. When Radha became eleven years old, she developed a little swelling on her neck. She visited the doctor who started medication for her. After a few years, John also developed a slight protrusion on his throat. He got worried and went to the doctor. But, the doctor assured him that it was a normal feature in boys while they are growing up. Can you think of any reasons for the difference in diagnosis? [NCERT Exemplar]**



**Ans.** The swelling on the neck of Radha may have been because of goiter, a condition of the thyroid gland during which the gland produces insufficient quantity of thyroxine. However, the protrusion in John's throat would be Adam's apple, a result of growth of voice box in adolescent boys.

**Q. 5. Observe the given chart and graph carefully and answer the questions that follow.** [NCERT Exemplar]

Age in Years	% of full height	
	Boys	Girls
8	72%	77%
9	75%	81%
10	78%	84%
11	81%	88%
12	84%	91%
13	88%	95%
14	92%	98%
15	95%	99%
16	98%	99.5%
17	99%	100%
18	100%	100%



**(i) Which of the line represents the height of boys?**

**(ii) Which line represents the height of girls?**

**(iii) What is the difference between the pattern of increase in the height of boys and girls?**

**(iv) Is this pattern true for each individual?**

**Ans. (i)** The red line represents the height of boys.

**(ii)** The blue line represents the height of girls.

**(iii)** At the onset of puberty, girls grow faster in height than the boys and by the age of 18 years, approximately both reach their maximum height.

**(iv)** No, the rate of growth in height varies among individuals. Some may grow in height suddenly at puberty and then slow down, while other may grow gradually.

**Q. 6. Our government has legalised the age for marriage in boys and girls. Give reasons as to why one should get married after a certain age. [NCERT Exemplar]**

**Ans.** In our country, the legal age of marriage is 18 years for girls and 21 years for boys. This is because teenage mothers are not prepared mentally or physically for motherhood. Early marriage and motherhood causes health problems in both mother and the child. It also curtails employment opportunities for the young woman and may cause mental agony as she is not ready to shoulder responsibilities of motherhood.

Also, the boys before that age may not be mentally matured and financially secure enough to take on the responsibilities of a family.

## Hots (Higher Order Thinking Skills)

**Q. 1. Lila always eats only dal and rice in every meal. She often falls ill and has become prone to diseases. Can you suggest changes in her diet which can make her healthy and free from disease? [NCERT Exemplar]**

**Ans.** Lila's diet is not a balanced diet because her meals do not contain the adequate nutritional requirement. She takes only proteins and carbohydrates in every meal. She requires to take vitamins and minerals in her meals to protect her from various diseases. Thus, I would suggest her to include fruits and vegetables in her meals.

**Q. 2. Why many of the boys have a hoarse voice?**

**Ans.** At puberty, the voice box or the larynx begins to grow. So that boys develop larger voice boxes. It can be seen as a protruding part of the throat called Adam's apple. In adolescent boys, sometimes, the muscles of the growing voice box go out of control and the voice becomes hoarse.