

## Lakhmir Singh Science Solutions For Class 8 Chapter 10

**1. What is the special name of the period of life between childhood and adulthood?**

Answer

The special name given to the period of life between childhood and adulthood is adolescence.

**2. Name another term for 'adolescents'.**

Answer

Another term for adolescents is teenagers.

**3. State the age at which adolescence usually begins and the age up to which it lasts.**

Answer

The age at which adolescence usually begins is 11 and the age up to which it lasts up to 19.

**4. Which is the most conspicuous change (clear visible change) in boys and girls during puberty?**

Answer

The sudden increase in height is the most conspicuous change (clear visible change) in boys and girls during puberty.

**5. How does the height of boys and girls change during puberty?**

Answer

The Long bones of arms and legs elongate and make the person taller.

**6. Name one factor on which the height of a person depends.**

Answer

The height of a person depends on the genes inherited from the parents.

**7. A nine-year-old boy is 120 cm tall. If the present height of the boy is 75% of his full height, calculate the full height which the boy will eventually reach at the end of the growth period.**

Answer

Calculation for height = present height / percentage of full height at this age X 100

=  $120 / 75 \times 100$

= 160 cm

**8. How do shoulders and chest change in boys during puberty?**

Answer

The shoulder becomes broad and chest widens in boys during puberty.

**9. How do hips of girls change during puberty?**

Answer

The region below the waist becomes wider in girls during puberty.

**10. What is the other name of the 'voice box'?**

Answer

Larynx is the other name of the 'voice box'.

**11. Which of the two have a smaller voice box: grown-up boys or grown-up girls?**

Answer

Grown-up girls have a smaller voice than grown-up boys.

**12. What is the common name of the bulge (or projection) at the front of the throat in grown-up boys?**

Answer

The common name of the bulge (or projection) at the front of the throat in grown-up boys is Adam's apple.

**13. What substance is secreted by sebaceous glands?**

Answer

Oil is secreted by sebaceous glands.

**14. Name the time period in one's life when the brain has the greatest capacity for learning.**

Answer

Adolescence is the time period in one's life when the brain has the greatest capacity for learning.

**15. Name two glands present in the skin whose increased activity causes pimples and acne.**

Answer

Sebaceous glands and sweat glands present in the skin whose increased activity causes pimples and acne.

**16. What name is given to those sexual characteristics in humans:**

**(a) which are present in babies at birth?**

**(b) which develop in mature boys and girls?**

Answer

(a) The sexual characters present in babies at the time of birth are called primary sexual characteristics.

(b) The sexual characters which develop in mature boys and girls are called secondary sexual characteristics.

**17. Name any two glands which function as endocrine glands as well as exocrine glands.**

Answer

Testes and Ovaries are the two glands which function as endocrine glands as well as exocrine glands.

**18. What is the other name of ductless glands?**

Answer

The another name of ductless glands is endocrine glands.

**19. What term is used for the secretion of endocrine glands?**

Answer

Hormones is the term is used for the secretion of endocrine glands

**20. Name**

**(a) Female sex hormone, and (b) male sex hormone.**

Answer

(a) Female sex hormone is estrogen

(b) Male sex hormone is testosterone.

**21. Name the hormone which develops secondary sexual characteristic:**

**(a) in females (girls)**

**(b) in males (boys)**

Answer

(a) The hormone which develops secondary sexual characteristic in females (girls) are estrogen.

(b) The hormone which develops secondary sexual characteristic in males (boys) is testosterone.

**22. State the function of the male sex hormone 'testosterone'.**

Answer

To develop secondary sexual characteristics is one of the functions of the male sex hormone 'testosterone'.

**23. Name the endocrine gland which controls the production of sex hormones 'testosterone' and 'estrogen'.**

Answer

Pituitary gland in the endocrine gland which controls the production of sex hormones 'testosterone' and 'estrogen'.

**24. What is the name of the process in which the thickened uterus lining along with its blood vessels is removed from the body of a woman through vaginal bleeding?**

Answer

The process in which the thickened uterus lining along with its blood vessels is removed from the body of a woman through vaginal bleeding is known as menstruation.

**25. Which comes earlier in the life of a woman: menarche or menopause?**

Answer

Menarche comes earlier in the life of a woman.

**26. (a) Around which age menarche occurs in girls?**

**(b) Around which age menopause occurs in woman?**

Answer

(a) Around the age of 10 to 12 years menarche occurs in girls.

(b) Around the age of 45 to 50 years menopause occurs in women.

**27. State one situation (other than menopause) when ovulation and menstruation stop in a woman.**

Answer

During the period of pregnancy the ovulation and menstruation stop in a woman (other than menopause).

**28. Which of the two has a shorter reproductive phase of life: men or women?**

Answer

Women have a shorter reproductive phase of life.

**29. Which of the following combinations of sex chromosomes products a male child (or boy)? XX or XY**

Answer

XY sex chromosomes products a male child (or boy).

**30. Which of the two, sperm or egg cell (ovum), decides the sex of the child?**

Answer

The sex of the child is decided by the sperm.

**31. What is the legal age for the marriage of (a) boys, and (b) girls, in our country?**

Answer

(a) The legal age for the marriage of boys in our country is 21 years.

(b) The legal age for the marriage of girls in our country is 18 years.

**32. Name a natural balanced food for infants.**

Answer

Mother's milk is the natural balanced food for infants.

**33. During which time the adolescent girls should take special care of personal hygiene?**

Answer

During the menstrual flow the adolescent girls should take special care of personal hygiene.

**34. Write the full name of (i) AIDS, and (ii) HIV.**

Answer

(i) AIDS stands for Acquired Immuno Deficiency Syndrom

(ii) HIV stands for Human Immunodeficiency Virus

**35. Write the name of the virus which causes AIDS disease.**

Answer

Human Immunodeficiency Virus causes AIDS disease.

**36. Name the endocrine gland attached to the base of the brain.**

Answer

Pituitary gland is attached to the base of the brain.

**37. Name the endocrine gland which secretes the growth hormone.**

Answer

Pituitary gland secretes the growth hormone.

**38. Name the substance which is needed continuously by the thyroid gland to make thyroxine hormone.**

Answer

The substance which is needed continuously by the thyroid gland to make thyroxine hormone is iodine.

**39. State the main symptom of goiter.**

Answer

Big and bulging throat is the main symptom of goiter.

**40. Name the hormone whose deficiency in the body causes goiter.**

Answer

The deficiency of thyroxine hormone in the body causes goiter.

**41. Name the gland which secretes insulin hormone.**

Answer

The gland which secretes insulin hormone is the pancreas.

**42. Name the disease caused by the insufficient production of insulin hormones by the pancreas.**

Answer

Diabetes is the disease caused by the insufficient production of insulin hormones by the pancreas.

**43. Name the hormone which prepares our body for action to face emergency situation like danger, fear, anger or excitement.**

Answer

Adrenaline hormone prepares our body for action to face emergency situation like danger, fear, anger, or excitement.

**44. Name the endocrine gland which secretes a hormone that maintains correct salt balance in the blood.**

Answer

Adrenal gland secretes hormones called aldosterone that maintains correct salt balance in the blood.

**45. Name a hormone (other than adrenalin) secreted by adrenals.**

Answer

A hormone (other than adrenalin) secreted by adrenals is aldosterone.

**46. Name the hormone whose deficiency causes diabetes.**

Answer

Insulin hormone whose deficiency causes diabetes.

**47. Name the hormone which is required for the metamorphosis of larvae (tadpoles) into adult frogs.**

Answer

Tadpole larvae require thyroxine hormone to undergo metamorphosis and change into adult frogs.

**48. Name the hormone which brings about metamorphosis in silk moth and changes caterpillar (larva) into adult silk moth.**

Answer

Insect hormone brings about metamorphosis in silk moth and changes caterpillar (larva) into adult silk moth.

**49. State whether the following statements are true or false**

- (a) The estrogen hormone develops a deeper voice in males at puberty.
- (b) Menstruation stops in men permanently around the age of 45 to 50 years.
- (c) Man (father) is responsible for the sex of the body.
- (d) The sex chromosomes in all the gametes (sperms) of a man are not identical. \
- (e) Half the female gametes contain X chromosomes and the other half contain Y chromosomes. (f) It is the sperm that determines the sex of a child.
- (g) Each normal cell in our body contains 23 chromosomes and the other half contain Y chromosomes.
- (h) A girl should not be allowed to work in the kitchen during menstruation.
- (i) A woman (mother) is responsible for the sex of her child.
- (j) Metamorphosis in insects (like silk moth) is brought about by thyroxine hormone.

Answer

- (a) False
- (b) False
- (c) True
- (d) True
- (e) False
- (f) True
- (g) False
- (h) False

(i) False

(j) False

**50. Fill in the following blanks with suitable words**

(a) Sexual maturity is reached at \_\_\_\_\_

(b) The changes which occur in boys and girls at puberty are brought about by various \_\_\_\_\_

(c) Initially, girls grow \_\_\_\_\_ than boys.

(d) The changes occurring in body and mind during adolescence are a natural part of \_\_\_\_\_ up.

(e) The features which help us to distinguish between a mature boy and a girl are called \_\_\_\_\_ sexual characteristics.

(f) The onset of puberty is controlled by \_\_\_\_\_

(g) The menstrual cycle in women is controlled by \_\_\_\_\_

(h) Each normal body cell in humans contains \_\_\_\_\_ pairs of chromosomes out of which \_\_\_\_\_ pair is of sex chromosomes.

(i) X and Y chromosomes are called \_\_\_\_\_ chromosomes.

(j) Early marriage and motherhood cause health problems in the \_\_\_\_\_ and the \_\_\_\_\_

(k) The protective foods are \_\_\_\_\_ and \_\_\_\_\_

(l) Thyroid and adrenals secrete their hormones when they receive instructions from \_\_\_\_\_ gland through its hormones.

(m) Metamorphosis in amphibians is brought about by \_\_\_\_\_ hormone.

Answer

(a) Sexual maturity is reached at puberty

(b) The changes which occur in boys and girls at puberty are brought about by various hormones

(c) Initially, girls grow faster than boys.

(d) The changes occurring in body and mind during adolescence are a natural part of growing up.

(e) The features which help us to distinguish between a mature boy and a girl are called secondary sexual characteristics.

(f) The onset of puberty is controlled by hormones

(g) The menstrual cycle in women is controlled by hormones

(h) Each normal body cell in humans contains 23 pairs of chromosomes out of which 1 pair is of sex chromosomes.

(i) X and Y chromosomes are called sex chromosomes.

(j) Early marriage and motherhood cause health problems in the mother and the child

(k) The protective foods are fruits and vegetables

(l) Thyroid and adrenals secrete their hormones when they receive instructions from pituitary gland through its hormones.

(m) Metamorphosis in amphibians is brought about by thyroxine hormone.

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