CBSE Test Paper-04

Chapter 08 How Do Organisms Reproduce

1. Asexual reproduction takes place through budding in **(1)**

    a. Leishmania
    b. Plasmodium
    c. Yeast
    d. Amoeba

2. Name the kind of reproduction in bees in which males are produced. **(1)**

    a. Parthenogenesis
    b. sexual reproduction
    c. Grafting
    d. Asexual reproduction

3. Which of the following is found in males? **(1)**

    a. Labia majora
    b. Graffian follicle
    c. Corpus luteum
    d. Leydig cells

4. Which of the following is not a part of female reproductive system in human beings? **(1)**

    a. Fallopian tube
    b. Ovary
    c. Uterus
    d. Vas deferens

5. Oospores is **(1)**

    a. haploid
    b. triploid

c. diploid
d. tetraploid

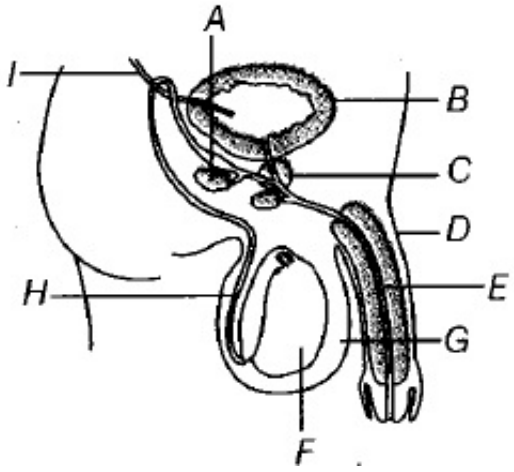
6. Name the causative organism of AIDS? **(1)**

7. What is fertilisation and its product? **(1)**

8. Select any two plants which are cultivated by vegetative propagation from those given below.
   Jasmine, lemon, tomato, wheat, rose, gram. **(1)**

9. How do hormonal methods of contraception act? **(1)**

10. Given below is the diagram of a reproductive system. **(3)**



i. Name the system.
ii. Name the parts labelled as A-I.
iii. Describe the functions of parts C, D, E and F.

11. Define menstruation. Precocious puberty and Menopause. **(3)**

12. During sexual reproduction, the amount of DNA does not get doubled. Explain. **(3)**

13. Draw a labeled diagram of the longitudinal section of a flower. **(3)**

14. With the help of a labelled diagram describe double fertilization in plants. **(5)**

15. Describe the menstrual cycle. **(5)**

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Answers

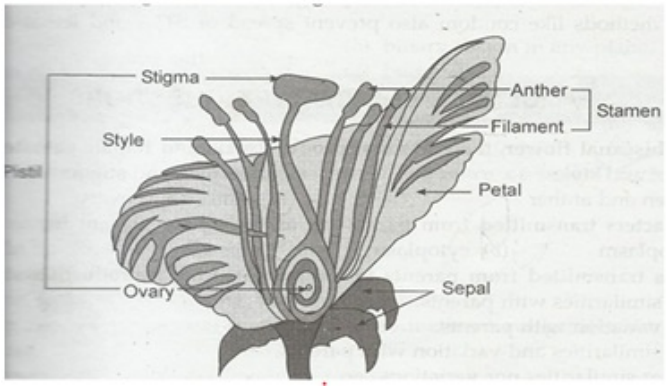
1. c. Yeast
   Explanation: A small protuberence is formed on the parent cell that grows into full size and forms a bud
2. a. Parthenogenesis
   Explanation: parthenogenesis is a type of asexual reproduction in which the offspring develops from unfertilized eggs
3. d. Leydig cells
   Explanation: Leydig cells release a class of hormones called androgens.
4. d. Vas deferens
   Explanation: It is a part of the male reproductive system
5. c. diploid
   Explanation: Oospores are diploid as they have 2n number of chromosomes.
6. HIV - Human Immunodeficiency virus.
7. The fusion of male gamete (sperm) with a female gamete (egg) is called fertilisation. This sexual reproduction leads to the formation of zygote, i.e. the product.
8. Vegetative propagation is a form of asexual reproduction in which plants has ability to produce new plants from the vegetative parts, such as leaves, stem and roots, under favourable conditions. Jasmine, lemon and rose are vegetatively propagated plants.
9. Follicle Stimulating Hormone (FSH) travels in blood to reach its target, the ovaries. FSH stimulates the development of several follicles. The developing follicles secrete estrogen. Luteinizing hormone (LH) target ovary where it causes ovulation. The hormonal methods of contraception suppress the production of the ovum in a woman through the inhibition of FSH (Follicle Stimulating Hormone) causes contraception.
10. i. It is the male reproductive system of humans.

ii. A-Seminal vesicle
B-Bladder
C-Prostate gland
D-Penis
E-Urethra
F-Testis
G- Scrotum
H-Vas deferens
I-Ureter

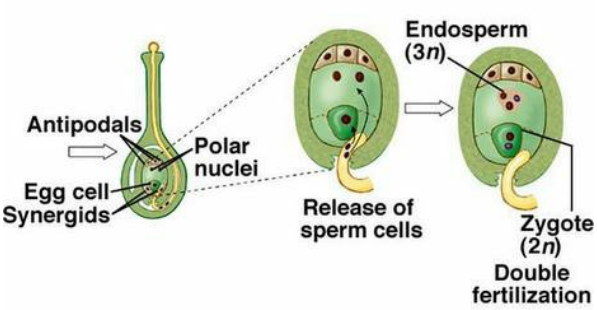
iii. Functions
C-Its secretion form 20-30% of semen, which is essential for the mobility of sperms.
D-It transfers sperm into the vagina of the female during copulation.
E-It is a common passage for both sperms and urine.
F-It produces sperms and male sex hormones called testosterone.

11. a. **Menstruation:** It is a process in which the blood, mucus and uterine tissue eliminated in female mammals.
    b. **Precocious puberty:** Normally a woman's fertile life starts from the age of puberty (about 13 years), but under some abnormal conditions like high level of sex hormones (LH and FSH), menstruation starts at an early age than the normal, it is called precocious puberty.
    c. **Menopause:** The natural physiological stoppage of menstruation is called menopause or the arrest of reproductive capacity at the age of 45-50 is called menopause. Woman is unable to bear the children.

12. During sexual reproduction, the reproducing cells or germ cells have half the number (amount) of chromosomes and DNA as compared to somatic or body cells or non-reproducing cells. As the offspring receives one DNA copy from each parent, this complex mechanism helps to maintain the amount of DNA constant in an individual. If the DNA had to get doubled during sexual reproduction, then each generation would have double the amount of DNA content as compared to the previous generation. That is why, the amount of DNA does not get doubled during sexual reproduction.

13. 

14. Double fertilization: In Angiosperms both the male gametes are functional. Double fertilization is a process in which egg nucleus and secondary nucleus are fertilized at one time by two male gametic nuclei. The fusion of one male gamete nucleus (IN) with egg or oosphere (IN) is called syngamy and results in the formation of oospore (2N). The fusion of second make nucleus (IN) with secondary nucleus (2N) is called triple fusion which results in formation of primary endosperm nucleus (3N).
Significance.
    i. Double fertilization provides stimulus to endosperm mother cell for the formation of nutritive tissue named endosperm.
    ii. It ensures continued supply of nourishment to the embryo that develops from zygote.



15. Mensurational cycle is the monthly cycle of changes in ovaries and lining of uterus i.e. endometrium. It occur in 3 phase follicular phase, ovulation, and luteal phase.
    i. In case fertilisation occurs, the inner wall of uterus thickens to receive the developing zygote.
    ii. In case fertilisation does not occurs, the hormonal level drop which breaks and sheds, the thickened wall along with the blood vessels, which moves out of the vagina in the form of discharge called menstrual flow, which lasts for 2-8 days.
    iii. The cycle of events takes place in the ovaries and uterus in every twenty eight days and marked by menstrual flow is called menstrual cycle.