

JSUNIL TUTORIAL

Class X Biology Ch 8. How do organisms reproduce

SHORT ANSWER TYPE QUESTIONS(3 Marks each)

1.What is advantages of sexual reproduction over asexual reproduction?

Ans-a) Sexual reproduction plays a prominent role in evolution of new species whereas asexual reproduction does not.

b)Sexual reproduction provides opportunity for new combination of gens and thus causes genetic variation. This is not applicable by asexual reproduction.

2.What are function performed by testis in human beings.?

Ans-The testis produces sperms and secrets the hormone testosterone ,which regulates the formation of sperms and brings about changes in appearance seen in boys at the time of puberty.

3.Why does menstruation occur?

Ans- Every month as one of the ovaries releases ovum,the uterine wall thickens and prepares itself for receiving the developing zygote.If the fertilization of the ovum does not take place, the lining of uterine wall slowly breaks and menstruation occurs.

4. Differentiate between natural and artificial vegetative propagation.

Ans

Natural propagation

Artificial propagation

1. New parts are obtained by 1.New plants obtained from vegetative propagation

Parts of the old plants. Like cutting, layering and grafting artificially.

2.Better quality of plant cannot 2.Better quality of the plant can be maintained.
be develop.

5.Draw a diagram of a flower to show its male and female reproductive parts. Label on it : a.- the ovary b- the anther c- the filament d- the stigma .

Ans- fig—

6.Describe the fertilization in flower .

Ans—Pollination is followed by fertilization in plants after pollen lands on the sutable stigma, it has to reach the female germ cells in the ovary. The pollen tube grows out of the pollen grain through the style to reach the ovary . After fertilization zygote divide several times to form an embryo within the ovule .The ovules than develop a tough coat and gets converted into seed. The seed contain a future embryo which converted into a seedlings.

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7. What is meant by pollination? How it takes place?

Ans—It is transfer of pollen grains from the anther of the stamen to stigma of a carpel .The pollen grains are transferred by many agents like insects, birds mans wind etc.

8.What is 'vegetative propagation'? Write two examples where it is used. State two reasons of practicing vegetative propagation for giving same types of plants.

Ans-Vegetative reproduction means production of new plants from the parts of the old plant like stem roots and leaves without the help of reproductive organs.

Reason of practicing vegetative propagation-a .It is cheaper, easier more rapid method of propagation. b . The traits of a parents plants are preserved by vegetative priopagation.

9. Illustrate the following with the help of suitable diagram:

a) Regeneration in Planaria.

b) Budding in Hydra.

Ans-Fig

Regeneration is ability of a fully differentiated organism to give rise to new individual from its lost body parts. For ex-in Planaria ,it can be cut into number of pieces and each pieces grows into complete organism. In Budding a small part of the body of the parent grows out as a 'bud' which than detaches and become a new organism. For ex- In Hydra bud develop as an outgrowth due to repeated cell division, when fully mature it detach from parent body and develop into new individual.

10. .Give differences between asexual and sexual reproduction.

Ans-

Asexual Reproduction	Sexual Reproduction
1.Only one parent is involved in asexual reproduction.	1.Two organisms, one male and one female are involved.
2. Gametes are not formed.	2. Gametes are formed .
3. Offspring's formed are genetically identical to the parent.	Offspring's formed are genetically different from their parents.

11. Give a short account of menstruation in females.

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Ans—The breakdown and removal of the inner thick and soft lining of the uterus along with its blood vessels in the form of vaginal bleeding is called menstruation. The series of cyclic changes involves the formation of follicles, preparation of uterine wall for implantation ,ovulation ,secretion of nutritive fluid by mature endometrium. In absence of fertilization , the uterine wall collapse and leads to discharge of blood and mucus with unfertilized egg.

12. Describe why :

a) Scrotum remains outside the body of human males ?

b) Some plants are propagated only by vegetative propagation ?

Ans—a) Scrotum are located outside the body of human male because sperm formation requires lower temperature than the normal body temperature .

b) Some plants are propagated only by vegetative propagation because they have lost the capacity to produce seeds .ex-Banana, orange, Jasmine etc.

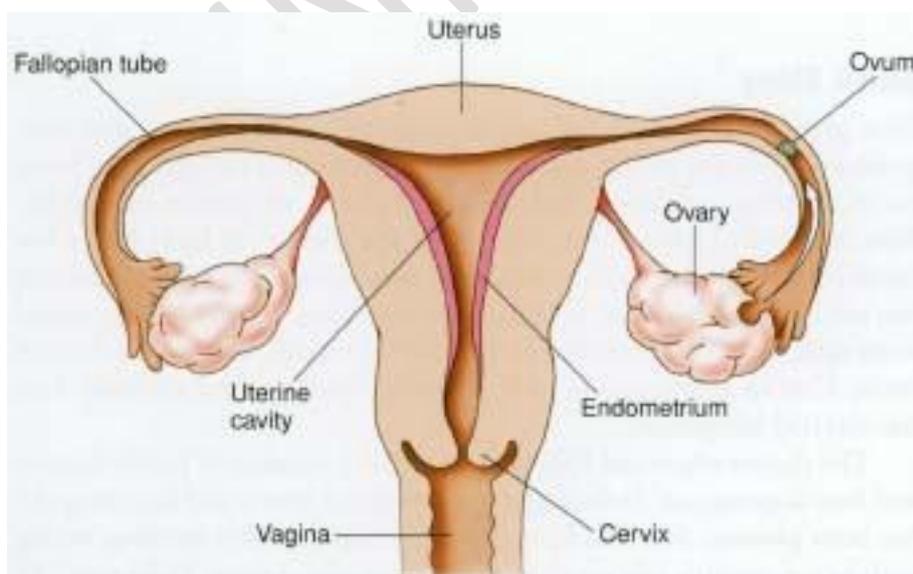
13. How does reproduction help in providing stability to populations of species ?

Ans-Niche is a place or position suitable for an organism .The DNA copying during reproduction helps in the maintenance of the body design features that allow the organism to use the particular niche.This is how reproduction helps in providing stability to population of species.

LONG ANSWER TYPE QUESTIONS (5 Marks Each)

14.Draw a diagram of human female reproduction system.

Ans-



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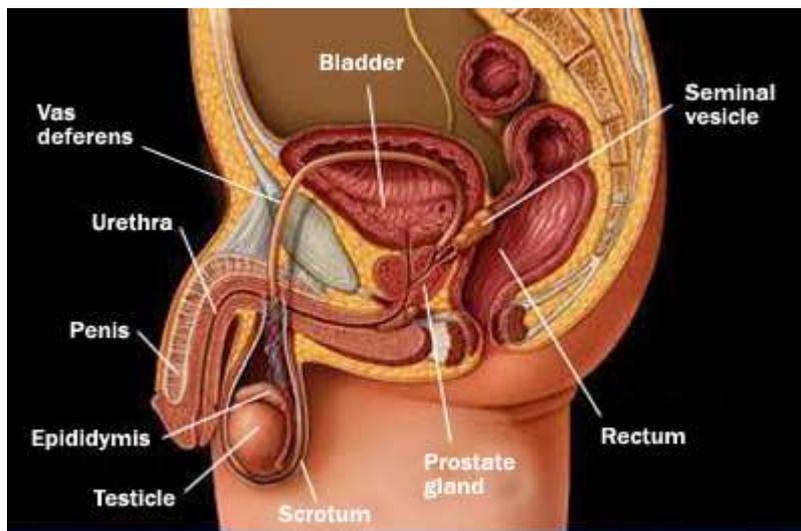
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15. Draw a labeled diagram of longitudinal section of pistil of flower showing germination of pollen grains on the stigma.

Ans-Fig

16. Describe a neat and well labeled diagram of male reproductive system in human.

Ans



17. Describe the changes taking place in female reproductive organs every month

Or What will happen if ovum is not fertilized? Describe the events in a sequence wise manner.

Or Why does menstruation occur? Ans-Cyclic changes taking place in the reproductive organs of non pregnant women are termed as menstrual cycle. They take place if the ovum is not fertilized. Important events in sexual cycle of females:

Ovulation-Release of mature ovum from the ovary.

Menstruation-Degeneration and removal of inner thickened lining of uterus along with blood after every 28 days, through the vaginal canal Both these events stop if pregnancy occurs and are resumed after the child birth: If fertilization does not occur, both the processes keep occurring periodically every month.

18. How do following organisms reproduce?

a) Amoeba

Ans-binary fission

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b) Planaria

Ans-fragmentation, regeneration, transverse binary fission

c) Yeast

Ans-budding ,spore formation

d) Frog

Ans-Sexual

e)Rose

Ans-grafting, cutting

f) Bacteria

Ans-binary fission, spore formation