Chapter – (How Do Organisms Reproduce)

Topic - 1 (Basics of Reproduction, Asexual Reproduction and Vegetative Propagation)

Very Short Answer Type Questions

Q.1. What is DNA?

Q.2. What is vegetative propagation?

Q.3. Name the plant that reproduces vegetatively by leaf.

Q.4. Name the type of reproduction mostly seen in unicellular organisms.

Q.5. Name two simple organisms having the ability of regeneration.

Q.6. Name the life process of an organism that helps in the growth of its population.

Q.7. Name the causative agent of the disease " Kalaazar" and its mode of asexual reproduction .

Q.8. Name the part of Bryophyllum where the buds are produced for vegetative propagation.

Q.9. Name the method by which Hydra reproduces. Is this method sexual or asexual?

Q.10. What are those organisms called which bear both the sex organs in the same individual? Give one example of such organism.

Q.11. An organism which is a worm has very simple eyes, that are really eye spots which detect light. Name the organism.

Q.12. Mention the mode of reproduction used by (i) Amoeba (ii) Planaria.

Q.13. State the method used for growing rose plants and jasmine plants.

Q.14. What happens when a Planaria gets cut into two pieces?

Q.15. What happens when a mature Spirogyra filament attains considerable length?

Q.16. Why is DNA copying necessary during reproduction?

Q.17. "Cell division" is a type of reproduction in unicellular organism". Justify.

Q.18. Name the information source of making proteins in the cell. State two basic events in reproduction.

Q.19. Malarial parasite divides into many daughter individuals similtaneously through multiple fission. State an advantage the parasite gets because of this type of reproduction.

Short Answer Type Questions – I

Q.1. (i) What is meant by vegetative propagation?
(ii) How will a plant be benefitted if it reproduces by vegetative propagation?

Q.2. List four modes of asexual reproduction.

Q.3. List four advantages of vegetative propagation.

Q.4. Write two differences between binary fission and multiple fission in a tabular form.

OR

How does binary fission differ from multiple fission?

Q.5. List two advantages of growing grapes or banana plants through vegetative propagation.

Q.6. How is the process of binary fission different in Amoeba and Leishmania?

Q.7. What is the importance of DNA copying in reproduction?

Q.8. Fallen leaves of 'Bryophyllum' on the ground produce new plants whereas the leaves of rose do not? Explain this difference between the two plants.

Q.9. (i) How do Leishmania and Plasmodium reproduce?
(ii) State one difference in their mode of reproduction.

Q.10. Draw a labeled diagram to illustrate budding in Hydra.

Q.11. "The chromosomal number of the sexually producing parents and their offspring is the same." Justify this statement.

OR

Explain how offspring and parents of organisms reproducing sexually have same number of chromosomes?

Short Answer Type Questions – II

Q.1. What is vegetative propagation? When is it used? List two uses.

Q.2. Define reproduction. How does it help in providing stability to the population of species?

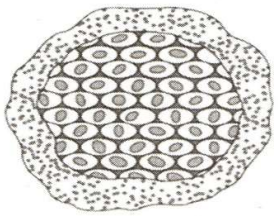
Q.3. In the context of reproduction of species state the main difference between fission and fragmentation. Also give one example of each.

Q.4. Explain the term "Regeneration" as used in relation to reproduction of organisms. Describe briefly how regeneration is carried out in multicellular organisms like Hydra.

Q.5. The process of spore formation takes place in many simple multicellular organisms which have certain reproductive parts that can be identified.
(i) Name the organism using this process.
(ii) Name the reproduction and non – reproduction parts of such organisms.

Q.6. (i) With the help of a diagram demonstrate the process of regeneration as seen in Planaria.
(ii) Which type of cells are used by such multi – cellular organisms to regenerate?

Q.7. The Picture given below depicts the process of asexual reproduction in Plasmodium.



(i) Name the process depicted above and define it.

(ii) What is meant by asexual reproduction?

Q.8. Why is DNA copying an essential part of the process of reproduction? What are the advantages of sexual reproduction over asexual reproduction? OR

Why is DNA copying an essential part of the process of reproduction?

Q.9. Explain the process of regeneration in Planaria. How is this process different from reproduction?

Q.10. Write one main difference between asexual and sexual mode of reproduction. Which species is likely to have comparatively better chances of survival – the one reproducing asexually or the one reproducing sexually? Justify your answer.

Q.11. List any two modes of asexual reproduction in animals. Under which mode of reproduction is vegetative propagation placed and why? List two advantages of vegetative propagation.

Q.12. Define the following process of asexual reproduction:

(i) Spore formation, (ii) Regeneration , (iii) Multiple fission.

Q.13. (a) Name any two plants that reproduce by grafting.

(b) List any two benefits to an organism that reproduces through spores?

Q.14. (i) With the help of a diagram, show asexual reproduction in Rhizopus?

(ii) How this method is advantageous for Rhizopus?

Q.15.(i) Differentiate between binary and multiple fission. Name an organism that reproduces by multiple fission.

(ii) Vegetative propagation is beneficial to plants that are propagated asexually. Give two advantages.

Q.16. What is the effect of DNA copying, which is not perfectly accurate, on the reproduction process? How does the amount of DNA remain constant though each new generation is a combination of DNA copies of two individuals?

Q.17. (a) Name the following:

(i) Thread like non – reproductive structures present in Rhizopus.

(ii) 'Blobs' that develop at the tips of the non – reproductive threads in Rhizopus.

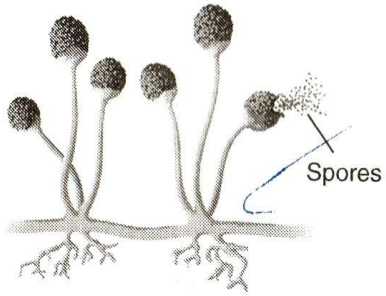
(b) Explain how these structures protect themselves and what is the function of the structures released from the 'blobs' in Rhizopus.

Q.18. List three distinguishing features between sexual and asexual type of reproduction , in tabular form.

Q.19. How do organisms, whether reproduced asexually or sexually maintain a constant chromosome number through

Q.20. What is multiple fission? How does it occur in an organism? Explain briefly. Name one organism which exhibits this type of reproduction.

Q.21. (i) Identify the process depicted in the diagram given below.



(ii) The part labelled as spores has a covering of thick walls around it. What is its advantage?
(iii) What are hyphae?

Q.22. What happens when
(i) Planaria gets cut into two pieces?
(ii) A mature Spirogyra filament attains considerable length?
(iii) On maturation sporangia burst?

Long Answer Type Questions

Q.1 What is vegetative propagation? List with brief explanation three advantages of practicing this process for growing sametypes of plants. Select two plants from the following which are grown by this process:
Banana, Wheat, Mustard, Jasmine, Gram.

Q.2. Name the following:
An organism which reproduces by:
(i) Binary fission
(ii) Multiple fission
(iii) Budding
(iv) Fragmentation
(v) Spore formation

Q.3. (i) What are the different methods of asexual reproduction?
(ii) Explain budding and regeneration with diagrams.

Q.4. Different organism reproduce by different methods suitable to their body designs.
(i) Justify the above statement using examples of three different organisms which reproduce by different methods of asexual reproduction.
(ii) Differentiate between sexual and asexual modes of reproduction.

Q.5. Differentiate between the following:
(i) Pollen tube and style

(ii) Fission in Amoeba and Plasmodium

(iii) Fragmentation and regeneration

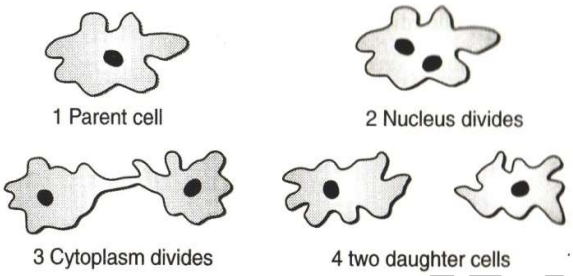
(iv) Bud of Hydra and bud of Bryophyllum

(v) Vegetative propagation and Spore formation

Q.6. (i) List three distinguishing features between sexual and asexual types of reproduction.

(ii) Explain why variations are observed in the offspring of sexually reproducing organisms?

Q.7. (i) Identify the process depicted in the picture given below:



(a) Name the organism that divides by the above process.

(b) Compare the above process with multiple fission.

(c) State the type of reproduction in the above process and define it.

(ii) Differentiate between fission in Amoeba and Leishmania.

Topic - 2 (Sexual Reproduction in Plants)

Very Short Answer Type Questions

Q.1. What is the function of petals in a flower?

Q.2. What is the function of pollen grains in flowers?

Q.3. What is the function of micropyle?

Q.4. What is the technical term given to the stalk of the flower?

Q.5. Which group of plants show double fertilization?

Q.6. What is the other name of (i) Androecium, (ii) Gynoecium?

Q.7. List two unisexual flowers.

Q.8. Name the parts of a bisexual flower that are not directly involved in reproduction.

Q.9. State the number of male gametes produced by each pollen grain.

Q.10. What happens to the ovule and the ovary after fertilization?

Q.11. What is the end product of double fertilization?

Q.12. Give the terms for the pollination by winds and bats.

Q.13. Why is fertilization not possible without pollination? OR
Why cannot fertilisation take place in flowers if pollination does not occur?

Short Answer Type Questions-I

Q.1. Mention any two functions of flowers?

Q.2. What is the significance of pollination?

Q.3. What are the two possibilities of Self-pollination?

Q.4. Explain giving one example of each, the unisexual and bisexual flowers.

Q.5. (i) What is the fate of the ovules and the ovary in a flower after fertilization?

(ii) How is the process of pollination different from fertilization?

Q.6. Draw a labelled longitudinal structure of a flower showing its parts.

Q.7. Describe about the different parts of a stamen in male reproductive organ of a plant.

Short Answer Type Questions-II

Q.1. What is meant by pollination? Name and differentiate between the two types of pollination .

Q.2. Describe in brief the function of various parts of female reproductive part of bisexual flower.

Q.3. Name three parts of carpel and give one function each.

Q.4. (i) Why is vegetative propagation practised for growing some types of plants?

(ii) Name the different parts of a flower that has germ cells.

(iii) List any two agents of pollination.

Q.5. (i) What is the difference between self – pollination and cross pollination?

(ii) What happens to the pollen which falls on a suitable stigma? Explain.

Q.6. Enumerate the method of fertilisation as seen in a flowering plant.

Q.7. What is a aseed? How does it help in reproduction in plants?

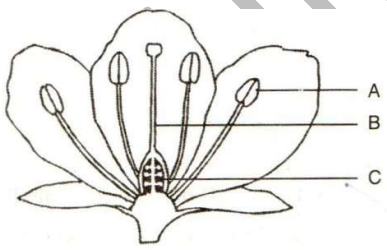
Q.8. Mention the important post – fertilisation changes in the flower.

Q.9. What is sexual reproduction? List its four significance.

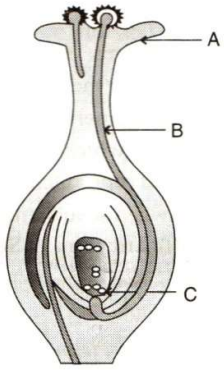
Q.10. Draw longitudinal section of a bisexual flower and label the following parts on it:

(i) Anther, (ii) Ovary, (iii) Stigma, (iv) Style.

Q.11. Name the parts A, B and C shown in the following diagram and state one function of each.



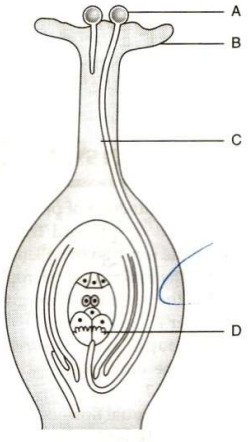
Q.12. Name the parts A, B and C shown in the diagram and write their functions.



Q.13. In a germinating seed, which parts are known as future shoot and future root? Mention the function of cotyledon.

Q.14. (a) List two reasons for the appearance of variations among the progeny formed by sexual reproduction.

(b)



(i) Name the part marked 'A' in the diagram.

(ii) How does 'A' reaches part 'B' ?

(iii) State the importance of the part 'C'.

(iv) What happens to the part marked 'D' after fertilization is over?

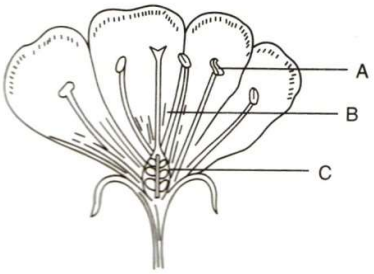
Q.15. Name the reproductive parts of an angiosperm. Where are these parts located? Explain in brief the structure of its female reproductive parts.

Q.16. Draw a diagram of the longitudinal section of a flower exhibiting germination of pollen on stigma and label (i) Ovary, (ii) Male germ – cell, (iii) Female – germ cell and (iv) ovule on it.

Q.17. (i) Draw a neat labelled diagram of a germinated seed and label radical, plumule and cotyledon.

(ii) Mention function of each of these parts.

Q.18. Name the parts A, B and C shown in the given diagram and state one function of each part.



Long Answer Type Questions

Q.1. (i) Define the terms pollination and fertilisation.

(ii) Distinguish between self pollination and cross pollination.

Q.2. What is pollination? How does it occur in plants? How does pollination lead to fertilization? Explain.

Q.3. (i) Give one example each of a unisexual and a bisexual flower.

(ii) Mention the changes a flower undergoes after fertilisation.

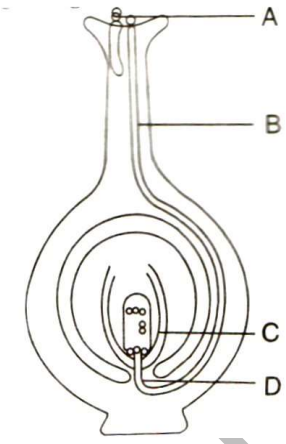
(iii) How does the amount of DNA remain constant though each new generation in a combination of DNA copies of two individuals?

Q.4. (i) Draw a diagram showing germination of pollen on stigma of a flower.

(ii) Label pollen grain, male germ cells, pollen tube and female germ cell in the above diagram.

(iii) Define fertilization in plants.

Q.5. (a) Name the parts labelled as A, B, C and D in the diagram given below:



(b) What is pollination? State its significance.

(c) How does fertilisation occur in flowers?

Name the parts of the flower that develop into (i) Seed, and (ii) Fruit after fertilization.

Q.6. (A) Draw a longitudinal section of a flower and label the following parts:

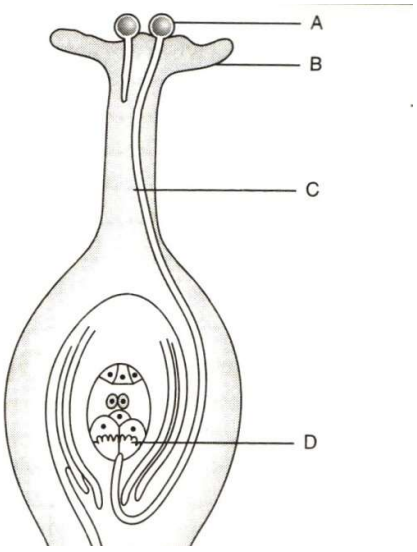
(i) Part that develops into a fruit

(ii) Part that produces pollen grain

(iii) Part that transfers male gametes

(iv) Part that is sticky to trap

(B) Name the parts labeled A, B, C, D in the diagram given below:



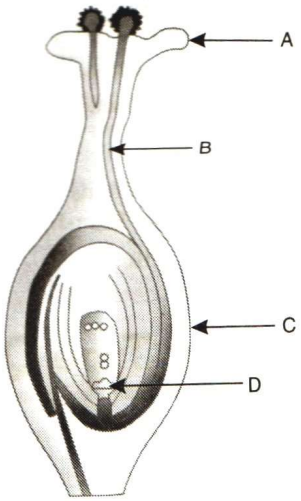
Q.7. (a) Identify A, B, and D in the given diagram and write their names.

(b) What is pollination? Explain its significance.

(c) Explain the process of fertilization in flowers. Name the parts of the flower that develop after fertilization into

(i) Seed,

(ii) Fruit.



Topic - 3 (Reproduction in Human Beings)

Very Short Answer Type Questions

Q.1. What is gestation period?

Q.2. Give the function of prostate gland and seminal vesicles.

OR

What is the role of seminal vesicles and the prostate gland?

Q.3. What happens when egg is not fertilized?

Q.4. Write the role of testes in male reproductive system.

Q.5. In the human female reproductive system where does fertilization occur?

Q.6. Name the parts where sperms are formed in a male's body and eggs are formed in female's body.

Q.7. Write the full form of IUCD and HIV.

Q.8. List two functions of ovary of human female reproductive system.

Q.9. No two individuals are absolutely alike in a population. Why?

Q.10. If a women is using a Copper – T, will it help in protecting her from sexually transmitted diseases?

Q.11. Give reason for the statement – Since the ovary release one egg every month, the uterus also prepares itself every month by making its lining thick and spongy.

Short Answer Type Questions-I

Q.1. Identify among the following organism which is reproduced by sexual and which by asexual method.
Amoeba, human beings, whale , Hydra , dog, Spirogyra.

Q.2. Write two functions of each (i) Testis, (ii) Ovaries.

Q.3. What is the main difference between sperms and eggs of humans? Write the importance of this difference.

Q.4. List two preparations shown every month by the uterus in anticipation of pregnancy in humans.

Q.5. What is the role of seminal vesicles and prostate gland in human male reproductive system?

Q.6. Mention the two functions of human testes.

OR

What are the functions performed by the testis in human beings?

Q.7. (i) Trace the path of sperms from where they are produced in human body to the exterior.
(ii) Write the functions of secretions of prostate gland and seminal vesicles in humans.

Q.8. State the importance of chromosomal difference between sperms and eggs of humans.

Q.9. Explain why does menstruation occur in human females?

Q.10. Mention the functions of (a) Placenta, (b) Fallopian tube in the human female reproductive system.

Q.11. How does the embryo get nourishment inside the mother's body?

Q.12. List any two contraceptive methods practiced only by women. Mention how these methods work?

Short Answer Type Questions-II

Q.1. List six specific characteristics of sexual reproduction.

Q.2. Write two example each of sexually transmitted diseases caused by (i) virus, (ii) bacteria. Explain how the transmission of such diseases be prevented?

Q.3. State one function of each of the following parts of human male reproductive system.
(i) Vas deferens, (ii) Testes, (iii) Prostate gland.

Q.4. What are the functions of testis in the human male reproductive system? Why are these located outside the abdominal cavity? Who is responsible for bringing about changes in appearance seen in boys at the time of puberty?

Q.5. What is placenta? Write any two major functions of placenta.

Q.6. (a) Mention the role of the following organs of human male reproductive system:
(i) Testis; (ii) Scrotum; (iii) Vas deferens; (iv) Prostate glands.
(b) What are the two roles of testosterone?

Q.7. What is Placenta? Explain its function in humans. OR What is Placenta? State its function in human female.

Q.8. Write one difference between sexual and asexual mode of reproduction. Which species is likely to have better chances of survival – the one reproducing asexually or the one reproducing sexually? Justify your answer.

Q.9. Is copy of DNA formed during reproduction identical to the original cell? Give reason for the support of your answer and explain how DNA copying is beneficial for the species?

Q.10. What is placenta? Explain its role in the development of human embryo.

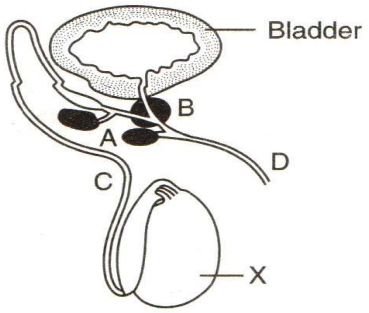
Q.11. State in brief the function of the following organs in the human female reproductive system:
(i) Ovary (ii) Fallopian tubes, (iii) Uterus.

Q.12. (i) How many eggs are produced every month by either of the ovaries in a human female? Where does fertilization takes place in the female reproductive system?
(ii) What happens in case the eggs released by the ovary is not fertilized?

Q.13. In the diagram of human male reproductive system given below:
(i) Labal the parts A and B.
(ii) Name the hormone produced by organ 'X'. What is the role of this hormore in human male?

(iii)Mention the name of substances that are transported by tubes.

(i) C and (ii) D.



Q.14. Suggest three contraceptive methods to control the size of human population which is essential for the health and prosperity of a country. State the basic principle involved in each.

Q.15. DNA content has the tendency to double itself during sexual reproduction due to combining of the genetic materials from two parents. How can the problem of DNA doubling be solved to maintain the consistency of the genetic material throughout the species?

Q.16. List any four methods of contraceptions used by humans. How does their use have a direct effect on the health and prosperity of a family.

Q.17. List four points of significance of reproductive health in a society. Name any two areas related to reproductive health which have improved over the past 50 years in our country.

Q.18. List four methods of contraception used by humans. Justify the following statement: "The use of contraceptive methods has a direct effect on the health and prosperity of a family". OR

List any four methods of contraception used by humans. How does their use have a direct effect on the health and prosperity of a family? OR

What are the different methods of contraception?

Q.19. (i) Mention two secondary sexual characters in human male.

(ii) Why testis in male body are extra – abdominal?

(iii) Write the dual purpose served by urethra in males?

Q.20. (i) State any two changes seen in boys at the time of puberty.

(ii) Define implantation and fertilization.

Q.21. Explain the following:

(i) Testes and Ovaries are considered as the primary sex organs.

(ii) Advantage of seed production in plant.

(iii) Vas deferens is long in human male.

Long Answer Type Questions

Q.1. (a) Write the functions of the following parts in human female reproductive system:
(i) Ovary (ii) Oviduct (iii) Uterus
(b) Describe the structure and function of placenta.

Q.2. (a) Name the human male reproductive organ that produces sperms and also secretes a hormone. Write the functions of the secreted hormone.
(b) Name the parts of the human female reproductive system where –
(i) Fertilisation takes place
(ii) Implantation of the fertilised egg occurs.
(c) Explain how the embryo gets nourishment inside the mother's body.

Q.3. (a) Write the functions of the following in human female reproductive system : Ovary, Oviduct, uterus.
(b) How does the embryo get nourishment inside the mother's body ? Explain in brief.

Q.4. What is placenta? Describe its structure. State its functions in case of a pregnant human female.

OR

What is placenta? Mention its role during pregnancy.

Q.5. (a) State in brief the functions of the following organs in the human female reproductive system:
Ovary, Fallopian tube, Uterus
(b) What is menstruation? Why does it occur? OR
Why does menstruation occur?

Q.6. (a) Name the respective part of human female reproductive system:
(i) That produces eggs,
(ii) Where fusion of eggs and sperm takes place, and
(iii) Where zygote gets implanted.
(b) Describe in brief what happens to the zygote after it gets implanted.

Q.7. (a) Write the name of the male reproductive organ that produces sperms and secrete a hormone. Name the hormone secreted and state its function.
(b) Write the site of fertilization and the part where the zygote gets implanted in the human female.
(c) State, in brief , how an embryo gets its nourishment inside the mother's body.

Q.8. (a) List two advantages of sexual reproduction over asexual reproduction.
(b) Name the type of asexual reproduction seen in: (i) Plasmodium, (ii) Planaria.
(c) How will an organism be benefitted if it reproduces through spores?
(d) List two contraceptive methods and state two benefits of adopting these methods.

Q.9. (a) Draw a sectional view of human female reproductive system and label the part where
(i) eggs develop.

(ii) Fertilization take place.

(iii) Fertilized eggs gets implanted.

(b) Describe, in brief the changes the uterus undergoes.

(i) To receive the zygote.

(ii) If zygote is not formed.

Q.10. (i) Name a sexually transmitted disease and a method to avoid it.

(ii) Draw a neat diagram of human male reproductive system and label the parts performing the following functions:

(a) Production of sperms,

(b) Gland which provide fluid,

(c) Provides low temperature for the formation of sperms.

(d) Common passage for sperm and urine.

Q.11. (a) Name two sexually transmitted disease.

(b) Why prenatal sex determination is prohibited by law.

(c) What are the different methods of contraception?