Class 10th Science

Chapter - 8

How do organisms reproduce ?

Textual Questions and Answers :

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Q.1. What is the importance of DNA copying in reproduction ?

Ans :- The consistency of DNA copying during reproduction is important for the maintenance of body design features that allow the organism to use the particular niche .

Q.2. Why is variation beneficial to the species but not necessarily for the individual ?

Ans :- Temperatures on earth can go up or down , water levels can very , or there could be meteorite hits , to think of a few examples . If a population of reproducing organisms were suited to a particular niche and if the niche were drastically altered , the population could be wiped out .

However , if some variations were to be present in a few individuals in these populations , there would be some change for them to survive .

Thus , if there were a population of bacteria living in temperate waters , and if the water temperature were to be increased by global warming most of these bacteria would die , but the few variants resistant to heat would survive any grow further . Variation is thus useful for the survival of species over time .

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Q.1. How does binary fission differ from multiple fission?

Ans :- In binary fission , the parent organisms splits to form two new organisms .

In multiple fission , the parent organism splits to form many new organisms at the same time .

Q.2. How will an organism be benefited if it reproduces trough spores ?

Ans :- The reproduction by spores takes place in plants . Spores are covered by hard protective coat which enables them to survive under unfavourable condition like lack of food , lack of water and extreme temperatures . But when the conditions become favourable then the spores can grow to produce new plants . Thus , the reproduction by spores benefits the plants because by surviving under adverse conditions , the spores make these plants live forever .

Q.3. Can you think of reasons why more complex organisms cannot give rise to new individuals through regeneration ?

Ans :- The tissues in complex organisms can not regenerate a new individual as they highly differentiated to perform specialised functions . For example , human skin cannot regenerate into a new individual as it is a highly differentiated tissue performing a designated function .

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

Ans :- Plants raised by vegetaive propagation can bear flowers and fruits earlier than those produced from seeds . Such methods also make possible the propagation of plants such as banana , orange , rose and jasmine that have lost the capacity to produce seeds . Another advantage of vegetative propagation is that all plants produced are genetically similar enough to the parent plant to have all its characteristics .

Q.5. Why is DNA copying an essential part of the process of reproduction ?

Ans :- Importance of DNA copying in a sexual reproduction is that the characteristics of the parent organisms are transmitted to its offsprings and at the same time some occasional variations are also produced in the offsprings .

Q.1. How is the process of pollination different from fertilisation ?

Ans :- Pollination is the transfer of poller grains from the anther of stamen of a flower to the stigma of a carpel in the same flower or another flower of the same species . On the other hand , fertilisation occurs when the male gamete present in the pollen grain joins with the female gamete present in ovule to form a zygote .

Q.2. What is the role of seminal vesicles and prostrate gland ?

Ans :- Seminal vesicles secrete a viscous fluid which forms most of the part of semen . It also lubricates the passage through which the sperms travel . This fluid also protects the sperms from the acids normally present in the urethra and female reproductive duct . Prostate gland produces prostatic fluid which is discharged into urethra through more than two dozen fire ducts . There is more secretion during sexcual act when they are forcefully ejected by contraction of muscular and elastic tissues .

Q.3. What are the changes seen in girls at the time of puberty ?

Ans :- The various changes which occur in girls at puberty are : Hair grow under armpits and pubic region . Breasts develop and enlarge . The hips broaden . Extra

fat is deposited in various part of the body like hips and things . Fallopian tubes , uterus and vagina enlarge ovaries start to release eggs . Menstruation start . Feelings and sexual drives associates with adulthood begin to develop .

Q.4. How dose the embryo get nourishment inside the mother's body ?

Ans :- The embryo gets nutrition from the mother's blood with the help of a special tissue called placenta . Placenta is a disc - shapeel tissue which is embedded in the uterus wall . It has villi on the embryo side of the tissue . On the mother's side are blood spaces which surround the villi . Placenta provides a large surface area for glucose and oxygen to pass from the mother to the embrague . The developing embryo also produces waste substances which can be removed by transferring them into the mother's blood through the placenta .

Q.5. If a women is using a copper - T , will it help in protecting her from sexually transmitted diseases ?

Ans :- No , the use of copper - T for contraception will not protect a women from sexually transmitted diseases.

EXERCISES

Q.1. COM Asexual reproduction takes place through budding in :

(a) Amoeba.

(b) Yeast.

(d) Plasmodium.

(d) Leishmania.

Ans :- (b) Yeast.

Q.2. Which of the following is not a part of the female reproductive system in human beings ?

(a) Ovary.

(b) Uterus.

(c) Vas deferens.

(d) Fallopian tube.

Ans :- (c) Vas deferens .

Q.3. The anther contains

(a) Sepals.

(b) Ovules.

(c) Carpel.

(d) Pollen grains.

Ans :- (d) Pollen grains .

Q.4. What are the advantages of sexual reproduction over a sexual reproduction ?

Ans :- In asexual reproductrion , the offsprings are almost identical to their parent because they have the same genes as their parent . So , much genetic variation is not possible in asexual reproduction . This is a disadvantage of a sexual reporoduction because it inhabits the further evolution of the organism . In sexual reproduction the offsprings , although similar to their parents are not identical to them or to one another . Because the offsprings receive some genes from the mother and some from the father . Because of the mixing of genes of mother and father in various different combination , all the offsprings hae genetic variations . In the way sexual reproduction leads to a greater variety in population .

Q.5. Why are the functions performed by testes in human beings .

Ans :- Testes are the primary reproductive organs in man . The function of testes is to make the male sex cells called sperens and also to make the male sex hormone called testosterone .

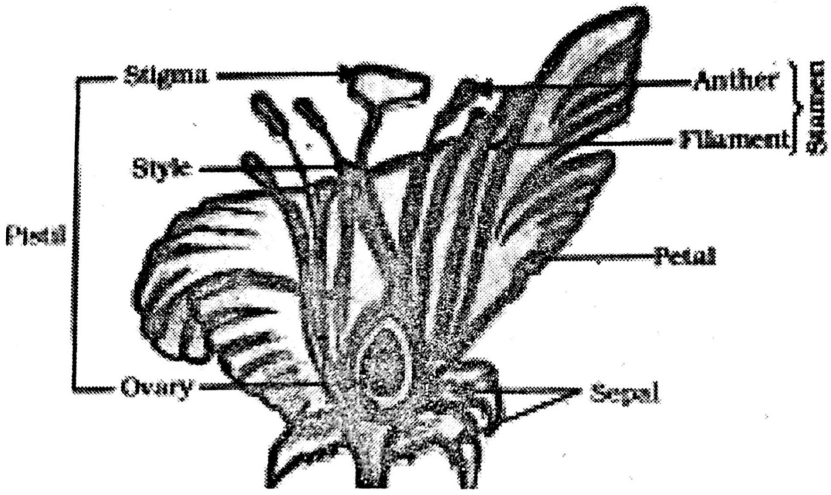
Q.6. Why does menstruation occur ?

Ans :- The ovary release one egg every month and the uterus prepares for the implantation of the zygote by thickening its walls . If the egg is not fertilised , the uterine living slowly breaks down and comes out

through the vagina as blood and mucus . This cycle takes place roughly roughly every month as menstruation and lasts for about two to eight days .

Q.7. Draw a labelled diagram of the longitudinal section of a flower .

Ans :-



Longitudinal section of flower

Q.8. What are the different methods of contraception ?

Ans :- The various method of contraception are : - Barrier methods , chemical methods , use of Loop or copper - T and surgical method .

In the barrier methods of preventing pregnancy , the physical devices such as condoms and diaphragm are used .

In the chemical methods of preventing pregnancy , the femalls use oral pills.

The loop or copper - T are also very effective in preventing pregnancy . A loop or copper - T is placed inside the uterus by a doctor or a trained nurse .

Surgical methods of birth control are available for males as well as females . In males , a small portion of the sperm duct is removed by surgical operation and both the cut ends are ligated property . In females , a small portion of the oviducts is removed by surgical operation and the cut ends are ligated .

Q.9. How are the modes of reproduction different in unicellular and multicellular organisms ?

Ans :- The modes for reproduction in unicellular organisms are binary fission and multiple fission .

The modes for reproduction in multicellular organisms are : regeneration , fragmentation and sexual reproduction .

Q.10. How does reproduction help in providing stability to populations of species ?

Ans :- Reproduction induces variations in the population which help the population to tide over adverse environmental conditions and adapt to changing environment . Reproduction also helps generate copies of individuals which are suited to a particular environment .

Q.11. What could be the reasons for adopting contraceptive methods ?

Ans :- The use of contraceptive methods helps in family planning . By adopting contraceptive methods , a couple can avoid unwanted pregnancy . They can choose how many children to have and when to have them .

Some of the contraceptive methods also provide protection to a person from sexually transmitted diseases .

Additional Quesetions and Answers :

Q.1. What is reproduction ? What is its importance ?

Ans :- The production of new organisms from the existing organisms of the same species is known as reproduction.

Reproduction is essential for the survival of a species on this earth .

Q.2. What are the two main methods of reproduction ?

Ans :- (i) asexual reproduction .

(ii) sexual reproduction .

Q.3. What is asexual reproduction ? Give example .

Ans :- The production of a new organism from a single parent without the involvement of sex cells in called asexual reproduction .

Examples :- binary fission in Amoeba , budding in Hydra, fragmentation in spirogyra etc.

Q.4. What is sexual reproduction ? Give examples .

Ans :- The production of a new organism from two partents by making use of their sex cells is called sexual reproduction .

Examples :- The humans , fish , frogs etc are reproduce by the method of sexual reproduction .

Q.5. Differentiate between sexual reproduction and asexual reproduction .

Ans :- (i) In asexual reproduction only one parent is needed whereas two parents are needed in sexual reproduction .

(ii) No sex cells are involved in asexual reproduction but sex cells take part in sexual reproduction .

Q.6. Name the types of asexual reproduction .

Ans :- There are six types of asexual reproduction . These are -

(i) Fission.

(ii) Budding.

(ii) Spore formation.

(iv) Regeneration.

(v) Fragmentation.

(vi) Vegetative propagation .

Q.7. Write a difference between fission and fragmentation .

Ans :- The main difference between fission and fragmentation is that in fission , a unicellular organism breaks up to form two or more daughter organisms , whereas in fragmentation , a multicellular organism breaks up to form two or more daughter organisms .

Q.8. Which of the following organisms reproduce by sexual method and which by asexual method ?

Amoeba, Cats , Humans , Hydra , Birds .

Ans :- Sexual method : - Cats , Humans , Birds .

Asexual method : - Ameoba , Hydra .

Q.9. What is meant by regeneration ? Name two animals which can regenerate fully from their cut body parts .

Ans :- The process of getting back a full organism from its body parts is called regeneration .

The animals Hydra and Planaria show regeneration.

Q.10. What is Zygote ? Name the two types of gametes.

Ans :- In sexual reproduction , a male gamete fuses with a female gamete to form a new cell called zygote .

The two types of gametes are : male gametes and female gametes .

Q.11. Write the name of the main parts of flower .

Ans :- The main parts of flowers are :

(i) Receptacle.

(ii) Sepals.

(iii) Petals.

(iv) Stamen.

(v) Carpel.

Q.12. What is carpel ? What are the parts of carpel ?

Ans :- Carpel is the female reproductive organs of the plant . A carpel is made of three parts . These are –

(i) Stigma.

(ii) Style.

(iii) Ovary.

Q.13. Which flowers are unisexual ? Give examples .

Ans :- The flowers which contain only one sex organ either stamens or carpels are called unisexual flowers .

Examples : - Papaya , watermelon .

Q.14. Which flowers are bisexual ? Give examples .

Ans :- The flowers which contain both the sex organs stamens as well as carpel , are called bisexual flowers .

Examples :- The flowwers Hibiscus and mustard plants are bisexual flowers .

Q.15. What is seed ?

Ans :- A seed is the reproductive unit of a plant which can be used to grow a new plant .

Q.16. What do you mean by fertilisation ? Write the types of fertilisation .

Ans :- The fusion of a male gamete with a female gamete to form a zygote during the sexual reproduction is called fertilisation .

There are two types of fertilisation :

(i) Internal fertilisation.

(ii) External fertilisation.

Q.17. Define internal fertilisation and external fertilisation .

Ans :- The fertilisation which occurs inside the female body is called internal fertilisation .

The fertilisation which occurs outside the female body is called external fertilisation .

Q.18. Define puberty .

Ans :- The reproductive systems in human beings become functional or start functioning at a definite ages called puberty .

Q.19. What is sexually transmitted diseases ? Give examples .

Ans :- The diseases which are spread by sexual contact with an infected person are called sexually transmitted diseases .

Examples :- Gonorrhoea , syphilis and AIDS .

Q.20. What do you mean by menstruation ?

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 menstrual flow or menstruation .

Multiple Choice Questions :

Q.1. One of the following organisms does not reproduce by binary fission . This is

(a) Amoeba.

(b) Plasmodium.

(c) Leishmania.

(d) Paramecium.

Ans :- (b) Plasmodium.

Q.2. The micro - organism which reproduces by multiple fission is the one which causes the disease known as :

(a) Kala - azar.

(b) Marasmus.

(c) Malaria.

(d) Amoebiasis.

Ans :- (c) Malaria.

Q.3. The protozoa having a flagellum at its one end is

(a) Amoeba.

(b) Paramecium.

(c) Hydra.

(d) Leishmania.

Ans :- (d) Leishmania.

Q.4. In the list of organisms given below those which both reproduce by the asexual method are

(i) Banana.

(ii) Yak.

(iii) Yeast.

(iv) Amoeba

(a) (ii) and (iv)

(b) (i) (iii) and (iv)

(c) (i) and (iv)

(d) (ii) (iii) and (iv)

Ans :- (b) (i) (iii) and (iv)

Q.5. One of the following organism does not reproduced by bedding this is :

(a) Spouge.

(b) Yeast.

(c) Hydra.

(d) Planaria.

Ans :- (d) Planaria.

Q.6. The disease Kala - azar is caused by a micro - organism knows as

(a) Planoria.

(b) Leech.

(c) Leishmania.

(d) Plasmodium.

Ans :- (c) Leishmania.

Q.7. Reproduction is essential for living organisms in order to –

(a) Keep the individual organ alive.

(b) Fulfil their energy requirements.

(c) Maintain growth.

(d) Continue the species forever .

Ans :- (d) Continue the species forever .

Q.8. The unicellular organism which reproduces by budding is -

(a) Spirogyra.

(b) Hydra.

(c) Planaria.

(d) Yeast

Ans :- (d) Yeast.

Q.9. A multicellular organism which reproduces by bedding is–

(a) Amoeba.

(b) Yeast.

(c) Leishmania.

(d) Hydra.

Ans :- (d) Hydra.

Q.10. The offsprings formed by asexual reproduction method have greater similarity among similarity among themselves because–

(i) A sexual reproduction involves only one parent.

(ii) A sexual reproduction involves two parents.

(iii) A sexual reproduction involves gametes.

(iv) A sexual reproduction doesnot involves gameteo.

(a) (i) and (ii)

(b) (i) and (iii)

(c) (ii) and (iv)

(d) (i) and (iv)

Ans :- (d) (i) and (iv)

Q.11. A simple multicellular animal having tenlacles which lives in fresh water usually reproduces by the asexual process of :

(a) Binary fission.

(b) Spore formation.

(c) Bedding.

(d) Fragmentation.

Ans :- (C) Bedding.

Q.12. One of the following does not reproduce by spore formation method . This is

(a) Rhizopus fungus.

(b) Penicillium fungus.

(c) Yeast fungus.

(d) Mucor fungus.

Ans :- (c) Yeast fungus.

Q.13. One of the following reproduces by forming spores . This in :

(a) Fern.

(b) Planaria.

(c) Spirogyra.

(d) Potato.

Ans :- (a) Fern.

Q.14. Asexual reproduction through budding takes place in :

(i) Amoeba and yeast .

(ii) Yeast and Hydra.

(iii) Hydra and plasmodium.

(iv) Corals and sponges.

(a) (i) and (ii)

(b) only (ii)

(c) (i) and (iii)

(d) (ii) and (iv)

Ans :- (d) (ii) and (iv)

Q.15. A feature of reproduction that is common to Amoeba, yeast and Bacterium is that :

(a) They are all multicellular.

(b) They are all unicellular.

(c) They reproduce only sexually.

(d) They reproduce asexually.

Ans :- (d) They reproduce asexually.

Q.16. One of the following organisms does not reproduce by fission. This is :

(a) Amoeba.

(b) Leishmania.

(c) Planaria.

(d) Plasmodium.

Ans :- (c) Planaria.

Q.17. An organism which may be considered to be a kind of plant and reproduces by budding is :

(a) Paramecium.

(b) Bread mould

(c) Hydra.

(d) Yeast.

Ans :- (d) Yeast.

Q.18. An animal which reproduces by the process of budding is -

(a) Plasmodium.

(b) Yeast.

(c) Hydra.

(d) Planaria.

Ans :- (c) Hydra.

Q.19. In spirogyra , a sexual reproduction takes place by:

(a) Division of cell into two cells

(b) Breaking up of filaments into smaller bits.

(c) Division of a cell into many cells.

(d) Formation of a large number of buds .

Ans :- (b) Formation of a large number of buds .

Q.20. The ability of a cell to divide into several cells during reproduction in plasmodium is called :

(a) Budding.

(b) Fragmentation.

(c) Binary fission.

(d) Multiple fission.

Ans :- (d) Multiple fission.

Q.21. Rhizopus fungus , the fine thread like structures spread on the whole surface of slice of bread are called:

(a) Rhizoids.

(b) Stems.

(c) Roots.

(d) Hyphae.

And :- (d) Hyphae.

Q.22. The two organisms which can regenerate fully from their cut body parts are :

(a) Paramecium and Hydra.

(b) Hydra and Amoeba.

(c) Planaria and Leishmania.

(d) Hydra and Planaria.

Ans :- (d) Hydra and Planaria.

Q.23. The two types of organisms which produce colonies by the process of badding are :

(a) Hydra and Corals

(b) Yeast and Sponges.

(c) Corals and Sponges.

(d) Hydra and Yeast.

Ans :- (c) Corals and Sponges.

Q.24. Spone formation is the most common asexual mathod of reproduction in :

(a) Protozoa.

(c) Tubers.

(c) Furgi.

(d) Algae.

Ans :- (c) Furgi.

Q.25. An alga which reproduces by the asexual reproduction method called fragmentation is :

(a) Rhizopus.

(b) Salmonella.

(c) Plasmodium.

(d) Spirogyra.

Ans :- (d)

Q.26. Binary fission describes the type of reproduction where the organism divides to form :

(a) Many spores.

(b) Two daughters.

(c) Many buds.

(d) Two hyphae.

Ans :- (b) Two daughters.

Q.27. The cut part of a plant step which is used in grafting is called :

(a) Stock.

(b) Stump.

(c) Scion.

(d) Graft

Ans . (c) Scion.

Q.28. The cut part of plant stem which is used in the process of grafting is known is :

(a) Stock.

(b) Scion.

(c) Cutting.

(d) bad.

Ans :- (a) Stock.

Q.29. Multiple fission occurs in one of the following . This is

(a) Bread mould.

(b) Kala - azar parasite.

(c) Flat worm.

(d) Malaria parasite.

Ans :- (d) Malaria parasite.

Q.30. An organism having a whip - like structure at one end which reproduces by the process of binary fission is

(a) Hydra.

(b) Paramecium.

(c) Leishmania.

(d) Plasmodium.

Ans :- (c) Leishmania.

Q.31. A tiny animal having tentacles which reproduces by growing buds on the sides of its body is :

(a) Planaria.

(b) Yeast.

(c) Amoeba.

(d) Hydra.

Ans :- (d) Hydra.

Q.32. An organism which can reproduce by two asexual reproduction methods one similar to the reproduction in Yeast and the other similar to the reproduction in Planaria is :

(a) Spirogyra.

(b) Bryophyllum.

(c) Hydra.

(d) Sea ane mone.

Ans :- (c) Hydra.

Q.33. Stock and scion are induced in the artificial propagation method known as :

(a) Tissue culture.

(b) Layering.

(c) Grafting.

(d) Cultings.

Ans :- (c) Grafting.

Q.34. In a sexual reproduction , two off springs having the same genetic material and the same body features are called :

(a) Callus.

(b) Twins.

(c) Alones.

(d) Chromosomes.

Ans :- (c) Alones.

Q.35. The method of a sexual reproduction in plants in which intre callus is produced is :

(a) Micropropagation.

(b) Vegetative propagation.

(c) Regeneration.

(d) Fragmentation.

Ans :- (a) Micropropagation.

Q.36. The anther contains :

(a) Sepals.

(b) Ovules.

(c) Carpel.

(d) Pollen grains.

Ans :- (d) Pollen grains.

Q.37. Which of the following is not a part of the female reproductive system in human beings ?

(a) Ovary.

(b) Uterus.

(c) Vas deferens.

(d) Oviducts.

Ans :- (c) Vas deferens.

Q.38. One of the following is not a part of human male reproductive system . This is :

(a) Testis.

(b) Oviduct.

(c) Seminal vesicle.

(d) Prostrate gland.

Ans :- (b) Oviduct.

Q.39. Which of the following is not a sexually transmitted disease ?

(a) Gonorrhoea.

(b) Hepatitis.

(c) Syphilis.

(d) AIDS.

Ans :- (b) Hepatitis.

Q.40. Which of the following method of contraception protects a person from acquiring a sexually transmitted disease ?

(a) Oral pills.

(b) Condom.

(c) Copper -T.

(d) Surgery.

Ans :- (b) Condom.

Q.41. In which one of following birth control methods a small portion of oviducts of a woman is removed by surgical operation and the cut ends are ligated ?

(a) Copper - T.

(b) Tube ctomy.

(c) Vasectomy.

(d) Diaphragm.

Ans :- (b) Tube tomy.

Q.42. One of the following is a surgical method which prevents the sperms from reaching the ovum and pregnancy does not occur . This method is :

(a) IUCD.

(b) Vasectomy.

(c) Condom.

(d) Tubectomy.

Ans :- (b) Vasectomy.

Q.43. Fertilisation results immediately in the formation of:

(a) A zygote.

(b) An embryo.

(c) A placenta.

(d) A foetus.

Ans :- (a) A zygote.

Q.44. The sexually transmitted discase which is caused by bacteria is :

(a) Malaria.

(b) Diarrhoea.

(c) Gonorrhoea.

(d) AIDS.

Ans :- (c) Gonorrhoea.

Q.45. AIDS is a deadly disease which is caused by :

(a) A protozoa.

(b) A fungus.

(c) A bacterium.

(d) A virus.

Ans :- (d) A virus.

Q.46. In a flower , the parts that produce male and female gametes are respectively :

(a) Sepal and anther.

(b) Filament and stigma.

(c) Auther and overy.

(d) Stamen and style.

Ans :- (c) Auther and overy.

Q.47. The characteristics transmitted from parents to offspring are present in :

(a) Cytoplasm.

(b) Ribosome.

(c) Golgi bodies.

(d) Genes.

Ans :- (d) Genes.

Q.48. In human males , the testes lie in the scrotum outside the body because it helps in the :

(a) Process of mating.

(b) Formation of sperms.

(c) Easy transfer of sperms.

(d) All the above.

Ans :- (b) Formation of sperms.

Q.49. In human females , an event that indicates the onset of reproductive phase is :

(a) Growth of body.

(b) Change in hair pattern.

(c) Change in voice.

(d) Menstruation.

Ans :- (c) Change in voice.

Q.50. One of the following occurs in the reproductive system of flowering plants as well as that of human . This is -

(a) Deferens.

(b) Anther.

(c) Overy.

(d) Style

Ans :- (c) Overy.

Higher Order thinking questions :

Q.1. There are four tiny organisms A , B , C and D. The organism A is a parasitic protozoan which causes a disease known as Kala - azar . The organism B is a microscopic single called animal which causes malaria disease in human beings . The organism C is a unicellular animal which can change its body shape according to need , it has no fixed shape . The organism D is also a unicellular animal which is shipper shaped having a large number of tiny hair all around its body .

(a) Name the organisms A , B , C and D.

(b) Name one characteristic body feature of organism A.

(c) Name the insect which carries organism B and transmits it from one person to another .

(d) What name is given to the asexual method of la reproduction of

(i) Organism A and

(ii) Orgamism B ?

(e) Where do organisms C and D live ?

Ans :- (a) A is leishmania . B is plasmodium . C is Amoeba dn Dis Paramecium .

(b) Organism A (leishmania) has a whip - like structure called flagellum at its one end .

(c) Female Anopheles mosquito .

(d) (i) Binary fission.

(ii) Multiple fission .

(e) In pond water.

Q.2. Two very small organisms X and Y both reproduce by the method of buddieg . Organism X is industrially overy important because it is used in making alcohol from sugar . It is also used in making bread . organism Y lives in freshwater If organism Y gets cut into a number of parts accidently , each cut part can grow to from complete organism .

(a) What are the organisms X and Y ?

(b) What is the name of the process in which X converts sugar into alcohol ?

(c) To which class of organisms does X belong ?

(c) Name an important body feature of organism Y.

(d) Which organism is multicellular and which one is unicellular ?

Ans :- (a) X is yeast and Y is HYdra.

(b) Fermentation.

(c) Fungi.

(d) Y has tentacles.

(e) Y is multicellular whereas X is unicellular .

Q.3. When a moist slice of bread was kept aside for a few days then some organism grew on it to form a white cottony mass which later turned black . When this slice of bread was observed through a magnifying glass , then fine thread like projection and thin stems having bulb like structures at the top where sun .

(a) What is the common name and scientific name of the organism which grew on the moist slice of bread ?

(b) How did the organism grow on the moist slice of bread automatically ?

(c) What are the fine , thread like projections on the surface of slice of bread known as ?

(d) What name is given to the knob like structures and what do they contain ?

(e) What is the name of this method of reproduction .

(f) Name one unicellular organism which reproduces by this method .

(g) Name two non - flowering plants which reproduce by this method .

Ans :- (a) Bread mould ; Rhizopus .

(b) Sporse of bread mould plant are always present around us . One such spore landed on moist slice of bread and finding the conditions favourable grew into bread mould .

(c) Hyphae .

(d) Sporangia , Spores .

(e) Spore formation .

(f) Bacteria .

(g) Ferns and Mossed .

Q.4. The stem of fruit tree X fixed in soil is cut in a slanting way . The upper part of stem of anoter fruit tree Y of different variety of same species is also cut in a slanting way . The cut stem of thee Y , without roots but having some leaves , is placed over the rooted cut stem of tree X in such a way that their cut surfaces fit together property . While joining the two cut stems , care is taken

to make sure that the layer Z of one cut stem is incontact with layer Z of the other cut stem . The joint of cut stem is bound tightly with a piece of cloth and covered properly with polythene . Soon the cut heals and the two stems grow together and become one fruit tree producing leaves , flowers and fruits .

(a) What is the name of this method of producing plants or trees ?

(b) What name is given to the cut stem of tree X having roots ?

(c) What name is given to the cut stem of tree Y which has no roots but has some leaves ?

(d) Name the layer Z.

(e) Why should the layer Z of one cat stem be in contact with the layer Z of the other cut stem ?

(f) Name any four fruit trees which are usually bred by this technique .

(g) State any one advantage of producing fruit trees by this technique .

Ans :- (a) Grafting .

(b) Stock.

(c) Scion.

(d) Cambium layer.

(e) Because the layer Z in the stem is responsible for growth .

(f) Apple , peace , apricot and pear trees .

(g) It enables us to combine the most desirable characteristics of the two plants in fruits .

Q.5. When a broken piece of the stem of a plant X is planted in the soil , a new plant grows from it in a week's time . The leaves of plant X also have many small entities Y in their margins which can fall to he ground alone or along with leaves and grow into new plants .

(a) Name of plant which X could be.

(b) What are the entities Y present on the leaves of X known as ?

(c) Name a plant other than X which can be reproduced from its leaves .

(d) Name a common plant grown in many homes which can be propagated from its broken stems like plant X.

(e) Name a kind of dormant organs present in dry of old grass plants lying in the fields which get activated and produce green plant after the rains .

Ans :- (a) Bryophyllum.

(b) Buds.

(c) Begonia.

(d) Money plant.

(e) Buds.

Q.6. The flask - shaped oryan A at the centre of a flower is surrounded by a number of little stalks B having swollen tops which lie just inside the ring of petals.

(a) Name A what are the various parts of A ?

(b) Which part of A contains gametes ?

(c) Name B what is the swollen top of B known as ?

(d) What does the swollen top of B contain ?

(e) Out of A and B , which one is

(i) Male part , and

(ii) Female part of the flower ?

Ans :- (a) A is corpel (orpistil) , stigma , syle and ovary.

(b) Overy.

(c) B is stamen , Anther.

(d) Pollen grains.

(e) (I) B (ii) A

Q.7. When a human female reaches a certain age then veginal bleeding occurs for a few days regular time intervals .

(a) What is this process known as

(i) in scientific terms and

(ii) in every day language .

(b) At what approximate age this process starts in human females ? What is the human female said to have attained at this stage ?

(c) After how much time is this process repeated ? For how many days this process usually lasts ?

(d) What does the onset of this process in human females signify ?

(e) At which particular event in the life of a human female . This process stops temporarily but starts again ?

(f) Al which approximate age of human female this process stops permanently ?

Ans :- (a) (i) Menstruation.

(ii) periods.

(b) 10 to 12 years puberty.

(c) 28 days ; About 3 to 5 days.

(d) That the reproductive system of human female has started working .

(e) Beginning of pregnancy .

(f) About 4th to 50 years .

Q.8. A woman uses pills A as a method of birth control (or 8 . preventing pregnancy) . The pills A stop the ovaries from releasing ovum into ovid vets . Another woman uses pills B as a method of birth control . The pills B kill the sperms and prevent pregnancy .

(a) What do the pills A contain ?

(b) What is the common name of pills A ?

(c) What do the pills B contain ?

(d) What is the common name of pills B ?

(e) What is the general name of these methods of birth control ?

Ans :- (a) Hormones .

(b) Oral pills .

(c) Spermicides.

(d) Viginal pills.

(e) Chemical methods.

(a) A woman uses a device X made of a common metal for preventing pregnancy . This device works by preventing the implantation of fertilised egg cell (or embryo) in the female organs Y.

(a) What are the two name of device X ?

(b) Name the organ Y ?

(c) Can this method of contraception protect a woman from acquiring a STD ?

Ans :- (a) Copper - T and IUCD.

(b) Uterus (or womb)

(c) No

Q.10. A , B and C are three common STDs . A and care caused by bacteria where as B is caused by a virus D. The virus D reduces the immunity of the infected person to such a low level that the person can die of even every mild disease .

(a) What could A and C be ?

(b) What is B ?

(c) Name the virus D ?

(d) How can A , A , B and C be caused ?

(e) Out of A , B and C. Which one does not have a definite cure as yet ?

Ans :- (a) Syphilis and Gonorrhoea .

(b) AIDS .

(c) HIV .

(d) By sexual contact with an infected person .

(e) B (AIDS) .