

- (Q.) What are the types of reproduction?** (1 Mark)
- (Ans) Reproduction is of two types:
Sexual reproduction
Asexual reproduction
- (Q.) Why reproduction is an essential process?** (1 Mark)
- (Ans) Organisms give birth to their individuals similar to them by the process of reproduction hence reproduction is necessary for the continuation of species.
- (Q.) What are male reproductive parts?** (1 Mark)
- (Ans) Male reproductive parts in humans are:
A pair of testes
A pair of sperm ducts
A penis
- (Q.) Name the reproductive parts of females.** (1 Mark)
- (Ans) Female reproductive parts are:
A pair of ovaries
A pair of oviducts (fallopian tubes)
Uterus
- (Q.) What are the different parts of a sperm?** (1 Mark)
- (Ans) Different parts of a sperm are head, middle piece and tail.
- (Q.) Name the organism which produces the largest eggs.** (1 Mark)
- (Ans) Ostrich produces the largest eggs.
- (Q.) Define foetus.** (1 Mark)
- (Ans) The stage of embryo in which all the body parts can be identified is called foetus.
- (Q.) What is metamorphosis?** (1 Mark)
- (Ans) Transformation of a larva into an adult through drastic changes is called metamorphosis.
- (Q.) Define sexual reproduction.** (1 Mark)
- (Ans) Type of reproduction in which a male and female are required to produce gametes and fusion of their gametes results in the formation of an individual is called sexual reproduction.

- (Q.) What is reproduction?** (1 Mark)
- (Ans) Process of producing new individuals is called reproduction.
- (Q.) (a) Define fertilisation**
- (b) Expand IVF** (1 Mark)
- (Ans) (a) The first step in the process of reproduction is the fusion of a sperm and an ovum. When sperms come in contact with an egg, one of the sperms may fuse with the egg. Such fusion of the egg and the sperm is called fertilisation.
- (b) IVF = In Vitro Fertilisation
- (Q.) Name the organs that produce sperms and ova in males and females, respectively.** (1 Mark)
- (Ans) Testes produce sperms in males and ovaries produce ova in females.
- (Q.) Why does a hen sit on its eggs?** (1 Mark)
- (Ans) A hen sits on its eggs to provide sufficient warmth to the egg for development of the embryo inside egg.
- (Q.) How much time is needed for development of a chick from embryo?** (1 Mark)
- (Ans) Development of a chick from embryo takes about three weeks.
- (Q.) What do you mean by fertilisation? What is the result of fertilisation?** (1 Mark)
- (Ans) Fertilisation is the fusion of a sperm with an ovum resulting in the formation of a zygote.
- (Q.) What are viviparous animals? Give examples.** (1 Mark)
- (Ans) Animals that give birth to young ones instead of laying eggs are called viviparous animals. Humans, dogs, cows, etc are the examples of viviparous animals.
- (Q.) Name the various methods of asexual reproduction with an example of each.** (2 Marks)
- (Ans) Various methods of asexual reproduction are:
1. Budding e.g. Hydra
 2. Binary fission e.g. Amoeba
- (Q.) (a) Define sexual reproduction.**
- (b) Why an individual has some characteristics of father and some of mother?** (2 Marks)
- (Ans) (a) Sexual reproduction can be defined as the reproduction beginning from the fusion of male and female gametes.
- (b) An individual is formed from a zygote which is a result of fusion of sperm from father and ovum from mother. Hence it inherits some characteristics of father and some of mother.

(Q.) Write down the type of fertilisation in (a) Frogs (b) Hens (c) Humans (d) Fish. (2 Marks)

- (Ans) (a) Frogs – External fertilisation
(b) Hens – Internal fertilisation
(c) Humans – Internal fertilisation
(d) Fish - External fertilisation

(Q.) Why frogs and fish produce a large number of gametes? (2 Marks)

- (Ans) In frogs and fish, external fertilisation takes place with the help of water. Their gametes are released in the water where other animals can feed on them. Hence, to ensure fertilisation of at least few of the gametes, these animals produce a large number of gametes.

(Q.) What is an embryo? Where does the development of a human embryo take place? (2 Marks)

- (Ans) After the formation of zygote, it divides to form a structure called embryo made of group of cells. The development of a human embryo takes place inside the uterus.

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(Q.) What are gametes? (2 Marks)

- (Ans) Haploid cells, take part in the reproduction are called gametes. Male gametes are called sperms and develop in the testes of the male, while female gamete is called ovum and develops in the ovary of the female.

(Q.) Discuss the steps that occur during sexual reproduction. (3 Marks)

- (Ans) Steps that occur during sexual reproduction are:

1. Formation of Gametes: Males as well as females produce gametes from their reproductive organs. Gametes are the single celled structures that help in reproduction.
2. Fertilisation: The male and the female gametes fuse together to form zygote.
3. Development of Zygote: The zygote divides and develops to give rise to the new individual.

(Q.) Describe the male reproductive organs in brief? (3 Marks)

- (Ans) Male reproductive organs are:

- A pair of testis: These organs help in production of male gametes.
- Sperm ducts: These are tube like structures that carry the male gametes from testes to the penis.
- Penis: It helps in deposition of male gametes (sperms) into the body of the female.

(Q.) Describe the female reproductive organs in brief?

(3 Marks)

(Ans) The female reproductive system consists of:

- A pair of ovaries: These produce female gametes.
- A pair of oviducts (fallopian tubes): These are tube like structures that carry the ovum from ovary to the uterus. It is the site where fertilisation takes place.
- Uterus: It is the site where the fertilised ovum or zygote develops into a baby.

(Q.) What is binary fission? Name the organism in which the binary fission is a method of reproduction.

(5 Marks)

(Ans) Binary fission is a type of asexual reproduction in single-celled organisms. In this, nucleus of the cell divides to form two nuclei. Then the body of the cell divides to form two cells each containing one nucleus. The two cells formed are the two individuals.

Binary fission is a method of reproduction in Amoeba.

(Q.) Answer the following in one word:

- (a) Process of production of exact copies of an organism**
- (b) First cloned mammal**
- (c) First person to perform cloning of an animal successfully**
- (d) Babies born through in vitro fertilisation**
- (e) Type of reproduction in amoeba**

(5 Marks)

- (Ans)
- (a) Cloning
 - (b) Dolly (a sheep)
 - (c) Dr. Ian Wilmut
 - (d) Test-tube babies
 - (e) Binary fission

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: **SCIENTIA EDUCATION** :
: Provides Quality & Results :
: Oriented (Class: I-XII) :
: **HOME TUITION** :
: all Subjects & Classes :
: ANYWHERE in GUWAHATI :
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