

# NCERT solution for Reproduction in Animals Science

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## Question 1

Explain the importance of reproduction in organisms.

### Answer

- 1) Reproduction is fundamental feature of all known life.
- 2) The organisms reproduce to produce young ones like them.
- 3) It helps to carry on their generation.
- 4) If reproduction does not take place, no living being will survive on the earth.
- 5) special characters of an organism are carried over to its next generation through reproduction only.

## Question 2

Describe the process of fertilization in human beings.

### Answer

- 1) Fertilization involves the fusion of the male and the female gamete.
- 2) It is the fusion of sperm and ovum
- 3) The male and the female gametes are released from the male and the female reproductive organs.
- 4) During fertilization, the haploid nucleus of the sperm and that of the ovum fuse with each other to form the zygote. This zygote divides to form an embryo
- 5) The embryo further multiples into many cells and develops further into a small baby called foetus.

## Question 3

Choose the most appropriate answer.

- (a) Internal fertilization occurs
- (i) in female body.
  - (ii) outside female body.

(iii) in male body.

(iv) outside male body.

(b) A tadpole develops into an adult frog by the process of

(i) fertilization

(ii) metamorphosis

(iii) embedding

(iv) budding

(c) The number of nuclei present in a zygote is

(i) none

(ii) one

(iii) two

(iv) four

### Answer

a) i)

b) ii)

c) ii)

### Question 4.

Indicate whether the following statements are True (T) or False (F).

(a) Oviparous animals give birth to young ones. ( )

(b) Each sperm is a single cell. ( )

(c) External fertilization takes place in frogs. ( )

(d) A new human individual develops from a cell called gamete. ( )

(e) Egg laid after fertilization is made up of a single cell. ( )

(f) Amoeba reproduces by budding. ( )

(g) Fertilization is necessary even in asexual reproduction. ( )

(h) Binary fission is a method of asexual reproduction. ( )

(i) A zygote is formed as a result of fertilization. ( )

(j) An embryo is made up of a single cell. ( )

### Answer

a) False

b) True

c) True

d) false

e) true

f) false

g) false

h) True

i) True

j) False

### Question 5

Give two differences between a zygote and a foetus.

### Answer

Zygote	Foetus
<b>It is a fertilized egg formed after the fusion of the sperm with the</b>	It is a stage of the embryo that shows all the main recognizable body parts of a mature

<b>egg.</b>	organism.
<b>The zygote divides several times to form an embryo.</b>	An embryo gradually develops into a foetus.

### Question 6

Define asexual reproduction. Describe two methods of asexual reproduction in animals.

### Answer

Asexual reproduction is that type of reproduction in which only single parent is involved. Asexual reproduction takes place by different methods like Budding, Binary fission etc.

Budding	Binary fission
<b>This type of reproduction takes place in Hydra and Bacteria. A part of the organism starts bulging out. Slowly it grows and develops into a separate individual.</b>	In this type of reproduction, a single organism gets divided into two. This type of reproduction takes place in Amoeba. The nucleus of the Amoeba gets divided into two followed by division of their bodies, each part getting one nucleus and developing into a separate individual.

### Question 7

In which female reproductive organ does the embryo get embedded?

### Answer

The embryo gets embedded in the wall of the uterus.

### Question 8

What is metamorphosis? Give examples.

### Answer

The transformation of the larva into adult through drastic changes is called metamorphosis. Frogs and insects are examples of organisms showing metamorphosis.

### Question 9

Differentiate between internal fertilization and external fertilization.

### Answer

<b>Internal fertilization</b>	<b>External fertilization</b>
<b>It involves the fusion of the male and the female gamete inside the female body.</b>	It involves the fusion of the male and the female gamete outside the female body.
<b>Chances of the survival of the offspring are more. Therefore, a small number of eggs are produced.</b>	Chances of survival of the offspring are less. Therefore, a large number of eggs are produced.
<b>Humans, cows, hens are organisms showing internal fertilization.</b>	Fish, frog, starfish are organisms showing external fertilization.

### Question 10

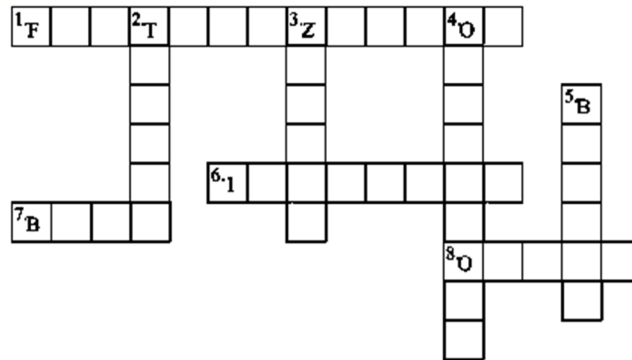
**Complete the crossword puzzle using the hints given below.**

#### Across

- The process of the fusion of the gametes.
- The type of fertilization in hen.
- The term used for bulges observed on the sides of the body of Hydra.
- Eggs are produced here.

#### Down

- Sperms are produced in these male reproductive organs.
- Another term for the fertilized egg.
- These animals lay eggs.
- A type of fission in amoeba.



### Answer

Across

1. FERTILIZATION
6. INTERNAL
7. BUDS
8. OVARY

Down

2. TESTIS
3. ZYGOTE
4. OVIPAROUS
5. BINARY

physics