

# CHAPTER 7

# HOW DO ORGANISMS REPRODUCE?

VEDA  
ACADEMY

CLASS 10<sup>TH</sup>

NCERT EXERCISE AND SOLUTIONS - SCIENCE



**Q. 1.** Asexual reproduction takes place through budding in

- (a) Amoeba
- (b) Yeast
- (c) *Plasmodium*
- (d) *Leishmania*

**ANSWER:-**

- (b) In yeast, it occurs by budding.

**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

**ANSWER:-**

- (c) Vas deferens is a part of male reproductive system in humans.

**Q. 3.** The anther contains

- (a) Sepals
- (b) Ovules
- (c) Pistil
- (d) Pollen grains

**ANSWER:-**

- (d) Anther contains pollen grains.



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

**ANSWER:-**

**Advantages of sexual reproduction:**

- (i) Sexual reproduction leads to greater variation, which helps ensure the survival of the species. The traits of both parents are inherited by the offspring.
- (ii) Compared to asexual reproduction, the variations in sexual reproduction are more advantageous because, in asexual reproduction, the DNA function remains confined within the inherited cellular structure.
- (iii) The number of offspring produced through sexual reproduction is generally fewer than those produced by asexual reproduction.

**Q. 5. What are the functions performed by the testis in human beings?**

**ANSWER:-**

In humans, the testes, the reproductive organs, are located outside the abdomen in a loose pouch known as the scrotum.

**Functions of the testes:**

- (i) They produce sperm.
- (ii) They secrete a hormone called testosterone, which is responsible for the development of secondary sexual characteristics in males.

**Q. 6. Why does menstruation occur?**

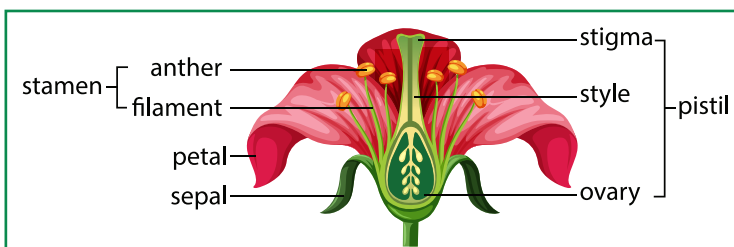
**ANSWER:-**

Once females reach puberty, they produce a mature egg cell each month through a process called the menstrual cycle.

- (i) During this time, a mature egg is released by an ovary.
- (ii) If the egg is not fertilized, the uterine lining is shed, and a new menstrual cycle begins.
- (iii) Typically, a menstrual cycle lasts 28 days.

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

**ANSWER:-**



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

**ANSWER:-**

Contraception refers to methods used to prevent pregnancy. These methods are generally categorized into the following types:

- (i) **Natural method:** This method avoids the meeting of sperm and egg by refraining from sexual activity between days 10 to 17 of the menstrual cycle, when ovulation is most likely to occur, increasing the chances of fertilization.
- (ii) **Barrier method:** This method uses barriers to prevent the sperm from meeting the egg. There are barriers for both males and females. Condoms, typically made of thin rubber, are used to cover the penis in males and the vagina in females.
- (iii) **Oral contraceptives:** These are tablets or drugs taken orally, containing small doses of hormones that prevent egg release, thus stopping fertilization.
- (iv) **Implants and surgical methods:** Devices like loops or Copper-T are implanted in the uterus to prevent pregnancy. Surgical methods can also be used to block the transfer of gametes. For example, vasectomy involves blocking the vas deferens in males to prevent sperm transfer, while tubectomy involves blocking the fallopian tubes in females, preventing the egg from reaching the uterus.

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

**ANSWER:-**

Reproduction in unicellular organisms occurs through the division of the entire cell. Common modes of reproduction in these organisms include fission, budding, and others.

In contrast, multicellular organisms have specialized reproductive organs, enabling more complex reproductive methods such as vegetative propagation and spore formation. In more advanced multicellular organisms, like humans and plants, reproduction typically occurs through sexual reproduction.

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

**ANSWER:-**

Living organisms reproduce to ensure the survival of their species. Reproduction creates new individuals that resemble their parents, thereby maintaining stability within the population. Additionally, the presence of genetic variations helps the species better adapt to environmental changes, enhancing its long-term survival.

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

**ANSWER:-**

Contraceptive methods are used for the following reasons:

- i. To prevent unwanted pregnancies.
- ii. To control population growth or birth rates.
- iii. To reduce the risk of transmitting sexually transmitted diseases.

