

• How do organisms reproduce?



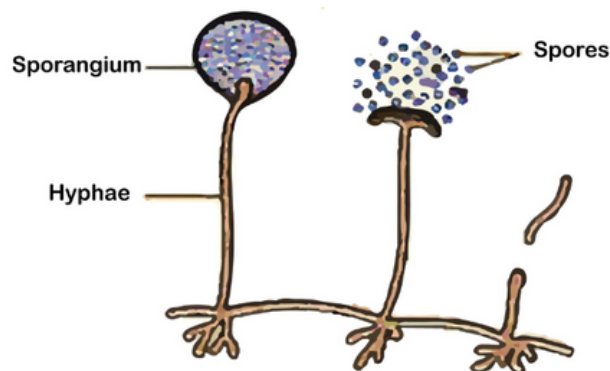
1. Difference between the asexual and sexual reproduction ? Also, give one example of each. (CBSE 2016, 2018, 2021, 2022)
2. Describe reproduction by spores in Rhizopus. (CBSE 2017, 2015, 2020, 2022)
3. List three techniques that have been developed to prevent pregnancy. Which one of these techniques is not meant for males ? How does the use of these techniques have a direct impact on the health and prosperity of a family ? (CBSE 2017, 2018, 2020)
4. a. Draw a diagram of human female reproductive system and label the parts:
Which produce an egg, Where fertilization takes place
B. List two bacterial diseases which are transmitted sexually.
C. What are contraceptive devices? Give two reasons for adopting contraceptive devices in humans. (CBSE 2019, 2017, 2016)
5. Define pollination. Explain the different types of pollination. List two agents of pollination. How does suitable pollination lead to fertilization ? (CBSE 2019, 2016, 2021)

Solutions

1.

S.No.	Sexual Reproduction	Asexual Reproduction
1.	It is a kind of reproduction where there is the involvement of one or two organisms or individuals.	It refers to the kind of reproduction that involves only one organism.
2.	Two parents are involved.	one parent is involved.
3.	Gamete formation occurs	It does not occur
4.	Sex organs are formed	No formation of sex organs
5.	Zygote forms through a fusion of gametes	The zygote does not form
6.	Higher invertebrates and all vertebrates	Lower organisms

2. They reproduce asexually by the formation of the spores. The body of the fungus is composed of hyphae which develop the sporangium. The sporangium is a swollen structure at the tip of the filaments bearing the spores. The spores are tough and resistant structures which are dispersed by the breaking of the sporangium.



Spore formation in *Rhizopus*

3. Barrier method: Use of condoms.

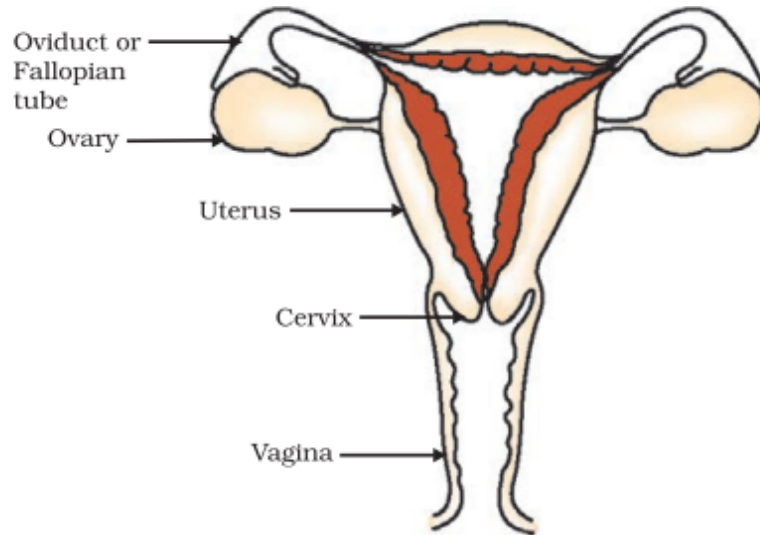
Surgical methods: vasectomy (in male), tubectomy (in female).

Intrauterine devices: copper T.

Oral contraception: oral hormonal pills.

These methods help to take care of mother and child. It also helps in maintaining a gap between the children so that they can use resources properly.

4.



B. Bacterial infections include chlamydia, gonorrhoea, and syphilis. Viral infections include human papillomavirus (HPV), herpes (HSV or herpes simplex virus), human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) and Hepatitis B.

C. Contraceptive methods are mainly adopted because of the following reasons:

- To prevent unwanted pregnancies.
- To control population rise or birth rate.
- To prevent the transfer of sexually transmitted diseases.

5. Pollination: Is defined as the deposition of pollen grains on the stigma of a flower from anthers belonging to the same flower, same plant or a different plant.

Pollination is of two types

Self pollination - Stigma receives pollen grains from the same flower

Cross pollination - Stigma receives pollen grains from a flower on the same plant or a different plant

Wind and insects are two agents of pollination, called as Anemophily and Entomophily respectively.

Example of wind pollination - Grasses, Gymnosperms, etc.

Example of insect pollination - Rose, Euphorbia sps, etc.

Pollination and fertilization - Suitable pollination leads to compatible pollen grains being deposited on the stigma, leading to pollen tube development and fertilization.