

1.

Reproduction in Organisms

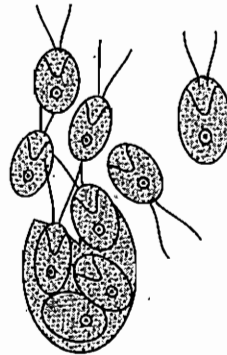
Topic 1: Reproduction

Previous Years' Examination Questions

1 Mark Questions

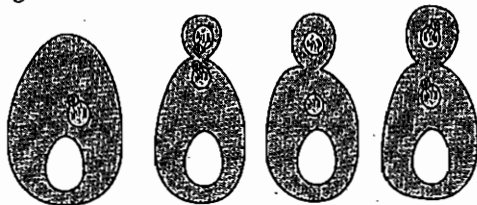
1. Name the type of cell division that takes place in the zygote of an organism exhibiting haplontic life cycle.
[Delhi 2011]
2. How does *Penicillium* reproduce asexually?
[Delhi 2011]
3. Offsprings derived by asexual reproduction are called clones. Justify giving two reasons.
[All India 2010]
4. Mention a characteristic feature and a function of zoospores in some algae.
[All India 2010]

5.



Identify this reproductive structure and name the organism they are being released from.
[Delhi 2010]

6. Name the organism and the mode of reproduction represented in the diagram given below. [All India 2010]



7. Name an organism where cell division is itself a mode of reproduction. [Foreign 2010]
8. What is the major difference you observe in the offsprings produced by asexual reproduction and in the progeny produced by sexual reproduction? [Delhi 2008]

Explanations

1. Meiosis
2. *Penicillium* reproduces by conidia formation which is quite common in fungi.
3. Offsprings produced by asexual reproduction are called clones because
 - (i) they are morphologically and genetically similar.
 - (ii) they are identical copies of their parents.
4. (i) Characteristic feature – Zoospores are motile, microscopic and thin-walled.
(ii) Function – Zoospores are asexual reproductive structures which help in multiplication of algae.
5. They are zoospores which belong to *Chlamydomonas* released by asexual reproduction.
6. Organism – Yeast
Mode of reproduction – Asexual by budding.
7. *Amoeba* and bacteria.
8. Offsprings produced by asexual reproduction are genetically identical to parents and they do not show variation. In sexual reproduction, offsprings produced as a result of meiosis and gametic fusion. Therefore, show variations and differences from either of the two parents as well as among themselves.

Topic 2: Sexual Reproduction

Previous Years'

Examination Questions

1 Mark Questions

1. Cucurbits and papaya plants bear staminate and pistillate flowers. Mention the categories they are put under separately on the basis of the type of flowers they bear.

[Delhi 2012]

2. A list of three flowering plants is given below. Which ones out of them are

(a) monoecious

(b) bearing pistillate flowers

List—Datepalm, cucurbits and pea

[Foreign 2011]

3. A moss plant produces a large number of antherozoids but relatively only a few egg cells. Why?

[Delhi 2010]

4. Why are papaya and date palm plants said to be dioecious, whereas cucurbits and coconut palms monoecious, inspite of all of them bearing unisexual flowers?

[Foreign 2010]

Explanations

1. Papaya is dioecious because the staminate and pistillate flowers are borne in two different plants, while cucumber is monoecious because it bears both staminate and pistillate flowers in the same plant.

2. (a) Cucurbits are monoecious.

(b) Datepalm is dioecious and an individual plant bears pistillate flowers.

3. The antherozoids or male gametes in moss plant are produced in large numbers as male

gametes are motile. The male gametes depend on water for transport towards female gametes (non-motile). To ensure fertilization, large number of male gametes are released to reach the non-motile female gametes.

4. (i) Papaya and datepalm plants are dioecious because male and female flowers are borne on separate individuals.

(ii) Cucurbits and coconut palms are monoecious because male and female flowers are borne on separate individuals.