

Class – X

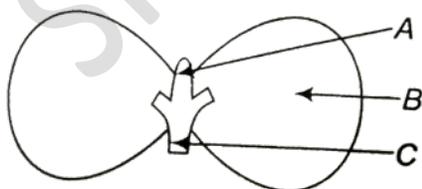
Subject – Biology

HOW DO ORGANISMS REPRODUCE ?

MM: – 30

Section-A Objective Type Questions (1 Mark Each)

1. In a flower, the parts that produce male and female gametes (germ cells) are
 - (a) stamen and anther
 - (b) filament and stigma
 - (c) anther and ovary
 - (d) stamen and style
2. In Rhizopus, tubular thread-like structures bearing sporangia at their tips are called
 - (a) filaments
 - (b) hyphae
 - (c) rhizoids
 - (d) roots
3. Which of the following statements are true for flowers?
 - (i) Flowers are always bisexual.
 - (ii) They are the sexual reproductive organs.
 - (iii) They are produced in all groups of plants.
 - (iv) After fertilization they give rise to fruits.
 - (a) (i) and (iv)
 - (b) (ii) and (iii)
 - (c) (i) and (iii)
 - (d) (ii) and (iv)
4. In the given figure parts A, B and C are respectively



- (a) cotyledon, plumule and radicle

- (b) plumule, radicle and cotyledon
(c) plumule, cotyledon and radicle
(d) radicle, cotyledon and plumule
5. Reproduction is essential for living organisms in order to
(a) keep the individual organism alive
(b) fulfill their energy requirement
(c) maintain growth
(d) continue the species generation after generation
6. In human females, an event that reflects onset of reproductive phase is
(a) growth of body
(b) changes in hair pattern
(c) change in voice
(d) menstruation
7. The correct sequence of organs in the male reproductive system for transport of sperms is
(a) testis → vas deferens → urethra
(b) testis → ureter → urethra
(c) testis → urethra → ureter
(d) testis → vas deferens → ureter
8. Which among the following diseases is not sexually transmitted?
(a) Syphilis
(b) Hepatitis
(c) HIV – AIDS
(d) Gonorrhoea
9. Assertion: In human male, testes are extra abdominal and lie in scrotal sacs.
Reason: Scrotum acts as a thermoregulator and keeps testicular temperature lower by 2–2.5°C for normal spermatogenesis.
(a) Both Assertion & Reason are correct & R is correct explanation of A
(b) Both Assertion & Reason are correct & R is not correct explanation of A
(c) Assertion is true but Reason is false
(d) Assertion is false but Reason is true



10. Assertion: Contraceptive pills can cause side effects in females.

Reason: They prevent pregnancy by blocking the incoming sperms.

- (a) Both Assertion & Reason are correct & R is correct explanation of A
- (b) Both Assertion & Reason are correct & R is not correct explanation of A
- (c) Assertion is true but Reason is false
- (d) Assertion is false but Reason is true

Section – B (2 Marks Each)

11. Can you consider cell division as a type of reproduction in unicellular organism? Give reason.

12. In tobacco plant, the male gametes have 24 chromosomes.

- a. What is the no. of chromosomes in female gamete?
- b. What is the no. of chromosomes in the zygote?

Section – C (3 Marks Each)

13. Draw diagram well labelled of a flower. Mention the functions of each whorl of it.

14. Draw well labelled diagram of female reproductive system.

15. What are various ways to avoid pregnancy? Elaborate any one method.

Section – D (5 Marks)

16. (a) Draw a neat & labelled diagram of a pistil showing pollen tube growth & its entry into ovule. [2]

(b) Distinguish between pollination & fertilisation. [1.5]

(c) Mention the site & product of fertilisation in a flower. [1.5]

CASE BASED STUDY (5 Marks)

17. In humans, if the egg is not fertilized, it lives for about one day. Since the ovary releases one egg every month, the uterus also prepares itself every month to receive a fertilized egg. Thus its lining becomes thick and spongy. This would be required for nourishing the embryo if fertilization had taken place. Now, however, this lining is not needed any longer. So, the lining slowly breaks and comes out through the vagina as

blood and mucous. This cycle takes place roughly every month and is known as menstruation. It usually lasts for about two to eight days.

1) What is the sexual cycle in human female that takes place every 28 days and marked by bleeding ?

- (a) Sexual cycle
- (b) Reproductive cycle
- (c) Menstrual cycle
- (d) Blood cycle

2) If fertilisation takes place, it results in the formation of :

- (a) an embryo
- (b) a zygote
- (c) a foetus
- (d) a placenta

3) Why does vaginal bleeding occur in human females on attaining puberty ?

- (a) Unfertilised egg along with thick uterus lining come out of vagina in form of bleeding.
- (b) In human females, ovaries start releasing egg or ovum once every 28 days from the age of puberty.
- (c) If fertilisation does not occur then menstrual flow occurs at the end of cycle.
- (d) All of these

4) In what conditions vaginal bleeding will not occur in a human female who has attained puberty ?

- (a) If the ovum is fertilised
- (b) If the ovum is not fertilised
- (c) If there is some hormonal imbalance in female
- (d) Both (a) and (b)

5) Mark one change from the following associated with sexual maturation in boys ?

- (a) loss of milk teeth
- (b) weight gain
- (c) increase in height
- (d) cracking of voice

Smartachievers

