

# How Do Organisms Reproduce?

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## Assertion & Reason Type Questions

**Directions:** Each of the following questions consists of two statements, one is Assertion (A) and the other is Reason (R). Give answer:

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

**Q1. Assertion (A):** Amoeba always produces two daughter amoebae while Plasmodium divides into many daughter cells.

**Reason (R):** Amoeba undergoes binary fission while Plasmodium undergoes multiple fission.

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**Answer :** (a) Both Assertion (A) and Reason are true and Reason (R) is correct explanation of Assertion (A).

**Q2. Assertion (A):** When a bacterium divides into two, and the resultant two bacteria divide again, the four bacteria produced would be almost similar.

**Reason (R):** DNA copying involves small inaccuracies in the reproduction process.

(CBSE 2023)

**Answer :** (b) Both Assertion (A) and Reason are true, but Reason (R) is not the correct explanation of Assertion (A).

**Q3. Assertion (A):** Regeneration is getting a full organism back from its body parts.

**Reason (R):** Hydra and Planaria show regeneration.

**Answer :** (b) Both Assertion (A) and Reason are true, but Reason (R) is not the correct explanation of Assertion (A).



**Q4. Assertion (A):** The transfer of pollen grains from the anther of a stamen to the stigma of a carpel is called pollination.

**Reason (R):** Pollination is done by insects, birds, wind and water.

**Answer :** (a) Both Assertion (A) and Reason are true but Reason (R) is not the correct explanation of Assertion (A).

**Q5. Assertion (A):** Probability of survival of an organism produced through sexual reproduction is more than that of organism produced through asexual mode.

**Reason (R):** Variations provide advantages to individual for survival.

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**Answer :** (a) Both Assertion (A) and Reason (R) are true and Reason (R) is correct explanation of the Assertion (A).

**Q6. Assertion (A):** Testes are located outside the abdominal cavity in the scrotum.

**Reason (R):** Because sperm formation requires lower temperature than the normal body temperature.

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**Answer :** (a) Both Assertion (A) and Reason are true and Reason (R) is correct explanation of Assertion (A).

**Q7. Assertion (A):** The uterine lining in human females becomes thick and spongy every month.

**Reason (R):** The lining breaks and comes out through the vagina as blood and mucus if fertilisation does not occur.

**Answer :** (b) Both Assertion (A) and Reason are true, but Reason (R) is not the correct explanation of Assertion (A).

**Q8. Assertion (A):** The embryo gets nutrition from the mother's blood with the help of a special tissue called placenta.

**Answer :** (b) Both Assertion (A) and Reason are true but Reason (R) is not the correct explanation of Assertion (A).

**Q9. Assertion (A):** Condom protects a person from STDs.

**Reason (R):** Condom prevents the sperms from meeting the ovum by acting as a barrier.

**Answer :** (b) Both Assertion (A) and Reason are true but Reason (R) is not the correct explanation of Assertion (A).

**Q10. Assertion (A):** Vasectomy is a surgical method of contraception.

**Reason (R):** In vasectomy, woman's oviduct are tied, blocked or cut.

**Answer :** (c) Reason (R) is false because in vasectomy, small portion of the sperm duct is cut or tied properly.

**Q11. Assertion(A) :** Asexual reproduction is a primitive type of reproduction.

**Reason (R) :** Asexual reproduction involves only mitotic cell division.

**Answer :** (a)

**Q12. Assertion(A) :** Spores are unicellular bodies.

**Reason (R) :** The parent body simply breaks up into smaller pieces on maturation.

**Answer :** (c)

**Q13. Assertion(A) :** Clones are offspring of an organism formed by asexual reproduction.

**Reason (R) :** Clones have exact copies of DNA as their parent.

**Answer :** (b)

**Q14. Assertion(A) :** Colonies of yeast multiply in sugar solution.

**Reason (R) :** Sugar is made of sucrose which provides energy for sustaining all life activities.

**Answer :** (a)

**Q15. Assertion(A) :** Pollen grains from the carpel stick to the stigma of stamen.

**Reason (R) :** The fertilised egg cells grow inside the ovules and become seeds.

**Answer :** (d)



**Q16. Assertion(A) :** The offspring produced by sexual reproduction is likely to adjust better in environmental fluctuation.

**Reason (R) :** During the fusion of gametes there is mixing of genetic material from two parents.

**Answer :** (a)

**Q17. Assertion(A) :** Growth hormone stimulates the growth of different body parts.

**Reason (R) :** Gonadotropins stimulate the production of sex hormones.

**Answer :** (b)

**Q18. Assertion(A) :** Testes lie in penis outside the body.

**Reason (R) :** Sperms require temperature lower than the body temperature for development-X-X-X-

**Answer :** (d)

