

Sexual Reproduction MCQs

1. What is the primary advantage of sexual reproduction over asexual reproduction?

- A) Faster reproduction
- B) Production of identical offspring
- C) Increased genetic diversity
- D) Less energy required

Answer: C) Increased genetic diversity

2. Which cell division process is responsible for the formation of gametes?

- A) Mitosis
- B) Binary fission
- C) Budding
- D) Meiosis

Answer: D) Meiosis

3. What is the chromosome number in human gametes?

- A) 23
- B) 46
- C) 22
- D) 44

Answer: A) 23

4. In humans, what are the male and female gametes called?

- A) Eggs and seeds
- B) Pollen and ovules

- C) Sperm and egg
- D) Spores and buds

Answer: C) Sperm and egg

5. Where does fertilization usually occur in humans?

- A) Ovary
- B) Uterus
- C) Fallopian tube
- D) Vagina

Answer: C) Fallopian tube

6. What is the main function of the placenta in mammals?

- A) To produce hormones
- B) To nourish the developing embryo
- C) To eliminate waste from the mother's body
- D) To protect the embryo from diseases

Answer: B) To nourish the developing embryo

7. Which of the following statements is true about meiosis?

- A) It produces two genetically identical cells.
- B) It occurs in all body cells.
- C) It produces four genetically diverse cells.
- D) It results in the doubling of chromosome number.

Answer: C) It produces four genetically diverse cells.

8. What does crossing over during meiosis result in?

- A) Reduced number of chromosomes

- B) Increased chromosome size
- C) Genetic recombination
- D) Identical daughter cells

Answer: C) Genetic recombination

9. Which organ produces sperm in males?

- A) Ovaries
- B) Uterus
- C) Testes
- D) Fallopian tubes

Answer: C) Testes

10. What is a zygote?

- A) A male reproductive cell
- B) A female reproductive cell
- C) A fertilized egg cell
- D) A type of hormone

Answer: C) A fertilized egg cell

11. Which of the following is NOT a characteristic of sexual reproduction?

- A) Requires two parents
- B) Offspring are genetically identical to parents
- C) Involves the fusion of gametes
- D) Leads to genetic variation

Answer: B) Offspring are genetically identical to parents

12. What determines the sex of a human baby?

- A) The number of chromosomes
- B) The age of the mother
- C) The type of cell division
- D) The combination of X and Y chromosomes

Answer: D) The combination of X and Y chromosomes

13. Which of the following structures in flowering plants is equivalent to the sperm in animals?

- A) Ovule
- B) Petal
- C) Pollen
- D) Stigma

Answer: C) Pollen

14. In a sexually reproducing organism, what type of cells undergo meiosis?

- A) Skin cells
- B) Nerve cells
- C) Germ cells
- D) Muscle cells

Answer: C) Germ cells

15. What is the main difference between internal and external fertilization?

- A) Internal fertilization does not involve gametes.
- B) External fertilization occurs inside the female body.
- C) Internal fertilization requires water.
- D) External fertilization occurs outside the body, usually in water.

Answer: D) External fertilization occurs outside the body, usually in water.

16. Which of the following is an example of an organism that reproduces sexually?

- A) Bacteria
- B) Hydra
- C) Amoeba
- D) Humans

Answer: D) Humans

17. What is the genetic composition of gametes in terms of chromosome number?

- A) Diploid
- B) Triploid
- C) Tetraploid
- D) Haploid

Answer: D) Haploid

18. Which hormone triggers ovulation in females?

- A) Estrogen
- B) Testosterone
- C) Luteinizing hormone (LH)
- D) Progesterone

Answer: C) Luteinizing hormone (LH)

19. Which structure in plants contains the female gamete?

- A) Stamen
- B) Pollen
- C) Anther
- D) Ovule

Answer: D) Ovule

20. What term describes the process where male and female gametes combine to form a new organism?

- A) Mitosis
- B) Budding
- C) Pollination
- D) Fertilization

Answer: D) Fertilization

21. What is the primary function of meiosis in sexual reproduction?

- A) To produce identical cells
- B) To generate energy for the cell
- C) To produce gametes with half the chromosome number
- D) To increase cell size

Answer: C) To produce gametes with half the chromosome number

22. What are homologous chromosomes?

- A) Chromosomes that are identical
- B) Chromosomes that have the same genes but may have different alleles
- C) Chromosomes that are found only in females
- D) Chromosomes that are responsible for sex determination

Answer: B) Chromosomes that have the same genes but may have different alleles

23. Which of the following structures forms after fertilization?

- A) Embryo
- B) Sperm

- C) Pollen grain
- D) Seed

Answer: A) Embryo

24. What is the role of the fallopian tubes in the female reproductive system?

- A) Site of fertilization
- B) Production of eggs
- C) Nourishment of the embryo
- D) Passage for urine

Answer: A) Site of fertilization

25. Which of the following is a hermaphroditic organism?

- A) Human
- B) Earthworm
- C) Frog
- D) Bacteria

Answer: B) Earthworm

26. In which phase of meiosis does crossing over occur?

- A) Prophase I
- B) Metaphase II
- C) Anaphase I
- D) Telophase II

Answer: A) Prophase I

27. What is the term for the fusion of a male and female gamete in plants?

- A) Germination

- B) Pollination
- C) Syngamy
- D) Budding

Answer: C) Syngamy

28. Which hormone is primarily responsible for the development of male secondary sexual characteristics?

- A) Estrogen
- B) Progesterone
- C) Testosterone
- D) Luteinizing hormone

Answer: C) Testosterone

29. What is the purpose of the menstrual cycle in females?

- A) To eliminate waste from the body
- B) To prepare the body for fertilization and pregnancy
- C) To regulate body temperature
- D) To provide nutrients to the embryo

Answer: B) To prepare the body for fertilization and pregnancy

30. Which of the following is NOT part of the male reproductive system?

- A) Testes
- B) Urethra
- C) Fallopian tube
- D) Vas deferens

Answer: C) Fallopian tube

31. Which part of the flower contains the female reproductive organs?

- A) Stamen
- B) Sepal
- C) Pistil (or Carpel)
- D) Petal

Answer: C) Pistil (or Carpel)

32. Which structure in the male reproductive system is responsible for producing testosterone?

- A) Seminal vesicles
- B) Prostate gland
- C) Epididymis
- D) Testes

Answer: D) Testes

33. What is the term for the early stage of development from a zygote until eight weeks in humans?

- A) Fetus
- B) Embryo
- C) Neonate
- D) Gamete

Answer: B) Embryo

34. Which of the following processes contributes to genetic variation during sexual reproduction?

- A) Binary fission
- B) Budding
- C) Cloning
- D) Independent assortment of chromosomes

Answer: D) Independent assortment of chromosomes

35. Which organ in females produces eggs?

- A) Testes
- B) Ovary
- C) Uterus
- D) Cervix

Answer: B) Ovary

36. Which reproductive strategy involves organisms releasing large numbers of eggs and sperm into the water?

- A) Internal fertilization
- B) Parthenogenesis
- C) Asexual reproduction
- D) External fertilization

Answer: D) External fertilization

37. Which of the following is true about asexual reproduction compared to sexual reproduction?

- A) It results in greater genetic diversity.
- B) It requires more energy and time.
- C) It produces genetically identical offspring.
- D) It always involves two parents.

Answer: C) It produces genetically identical offspring.

38. What is the purpose of the acrosome in a sperm cell?

- A) To provide energy for movement
- B) To contain genetic material
- C) To penetrate the egg cell

D) To regulate cell division

Answer: C) To penetrate the egg cell

39. Which structure in flowering plants acts as the male reproductive organ?

A) Ovary

B) Pistil

C) Stamen

D) Stigma

Answer: C) Stamen

40. In plants, what structure develops into a seed after fertilization?

A) Petal

B) Ovule

C) Sepal

D) Stamen

Answer: B) Ovule
