Reproduction Review

1. A diploid cell has_____ the number of chromosomes as a haploid cell.

   (A) one-fourth
   (B) half
   (C) twice
   (D) four times

2. Mitosis produces

   (A) two identical cells with paired chromosomes.
   (B) two non-identical cells with paired chromosomes.
   (C) four identical cells with single chromosomes.
   (D) four non-identical cells with single chromosomes.

3. The process by which a unicellular organism divides by mitosis into two equal halves is called

   (A) sporulation.
   (B) vegetative propagation.
   (C) regeneration.
   (D) binary fission.

4. Meiosis forms

   (A) identical cells with diploid chromosomes.
   (B) non-identical cells with haploid chromosomes.
   (C) identical cells with haploid chromosomes.
   (D) non-identical cells with diploid chromosomes.

5. Which of the following statements applies **only** to mitosis?

   (A) It is used for gamete formation.
   (B) It is the main replication method for sexual reproduction.
   (C) It produces haploid cells.
   (D) It produces diploid cells.

6. Which form of reproduction is thought to be best in a stable environment?

(A) asexual
(B) sexual
(C) budding
(D) parthenogenesis

7. Which form of reproduction can result from damage to the original animal?

(A) asexual
(B) fragmentation
(C) budding
(D) parthenogenesis

8. Which form of reproduction is useful to an animal with little mobility that reproduces sexually?

(A) fission
(B) budding
(C) parthenogenesis
(D) hermaphroditism

9. Genetically unique individuals are produced through _____.

(A) sexual reproduction
(B) parthenogenesis
(C) budding
(D) fragmentation

10. Part of the stem of a plant is attached to a different root stock. This method of asexual reproduction is called

(A) budding.
(B) layering.
(C) grafting.
(D) fragmentation.

11. Which of the following hormones is released from the anterior pituitary?

    (A) testosterone
    (B) estrogen
    (C) progesterone
    (D) follicle stimulating hormone (FSH)

12. Testosterone stimulates the production of

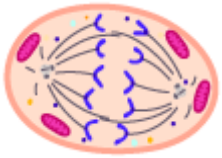
    (A) eggs.
    (B) sperm.
    (C) estrogen.
    (D) human growth hormone.

13. Two of the hormones that regulate a female's ovarian and menstrual cycle are

    (A) testosterone and estrogen.
    (B) estrogen and progesterone.
    (C) testosterone and FSH.
    (D) progesterone and testosterone.

14. Place the following stages of mitosis in the correct order.

Anaphase

_____ 

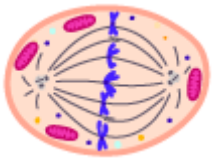
Cytokinesis

_____ 

Interphase

_____ 

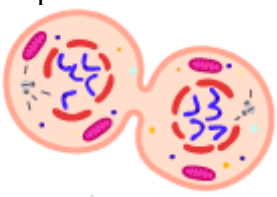
Metaphase

_____ 

Prophase

_____ 

Telophase

_____ 

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15. Which type of cells undergo mitosis?

16. Which type of cells undergo meiosis?

17. Define the following terms.

    (a) haploid cell

    (b) diploid cell

18. Which cells in a living thing are haploid?

19. Which cells in a living thing are diploid?

20. What are homologous chromosomes?

21. Describe two similarities and two differences between mitosis and meiosis.

Similarities	Differences

22. Briefly explain of each of the following types of asexual reproduction.

    (a) Budding

    (b) Vegetative propagation

    (c) Fragmentation (regeneration)

    (d) Spores

23. Briefly explain each of the following artificial methods of asexual reproduction.

    (a) Grafting

    (b) Cuttings

    (c) Layering

24. Give two advantages and disadvantages of asexual reproduction.

Advantages	Disadvantages

25. Give two advantages and disadvantages of sexual reproduction.

Advantages	Disadvantages

26. Label the following diagrams of the human reproductive system.

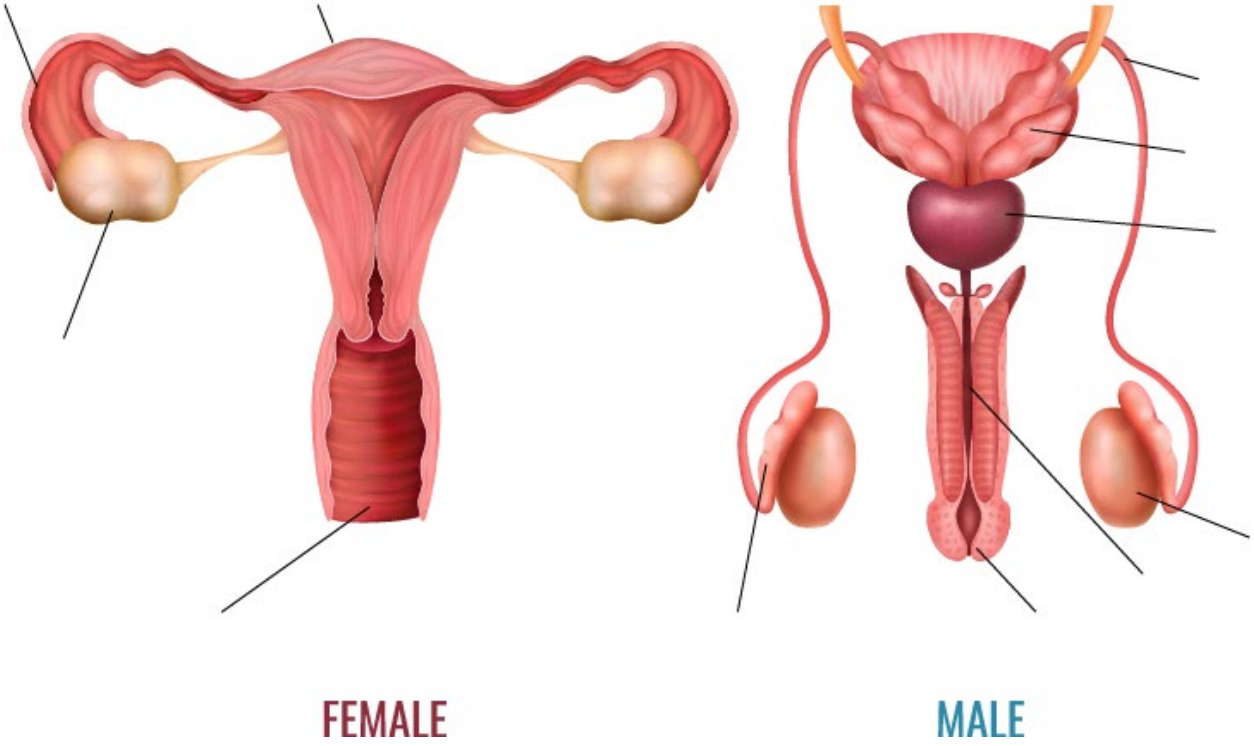

Figure 1- Human reproductive system
Credit: macrovector (Adobe Stock Photo)

epididymis	penis	testicle	vagina
fallopian tube	prostate	urethra	vas deferens
ovary	seminal vesicle	uterus	

27. Match the parts of the female and male reproductive systems with the appropriate function.

Part		Function
A. epidiymus	_____	connect ovaries to the uterus
B. fallopian tubes	_____	produce eggs and secrete estrogen
C. ovaries	_____	produce sperm and secrete testosterone
D. penis	_____	passageway for a baby to leave the mother's body
E. prostate gland	_____	secrete substances that become part of semen
F. testes	_____	path for sperm to leave body through the urethra
G. uterus	_____	store sperm until they leave the body
H. vagina	_____	transport sperm from the epididymis to the urethra
I. vas defrens	_____	where a fetus grows and develops until birth

28. Fill in the blanks with words from the word bank.

The male _____ cell and the female _____ fuse together to produce a _____ that travels down the fallopian tube to the _____. It grows as it travels and becomes a blastocyst. The blastocyst embeds in the lining of the uterus forming an _____. The embryo begins to grow and become more complex. After about eight weeks, it has developed specialized cells and most organs. At this stage it is now referred to as a _____.

egg	embryo	fetus	sperm	uterus	zygote