

MCQs – Oogenesis and Menstrual Cycle (With Explanations)

1. Formation of mature female gamete is called:
 - (a) Spermatogenesis
 - (b) Fertilisation
 - (c) Oogenesis
 - (d) Implantation

Answer: (c) Oogenesis

Explanation: Oogenesis is the process of formation of mature female gametes (ova) in the ovaries.

2. Oogenesis begins during:
 - (a) Puberty
 - (b) Old age
 - (c) Embryonic development
 - (d) Menopause

Answer: (c) Embryonic development

Explanation: In females, oogenesis starts during fetal life before birth.

3. Female gamete mother cells are called:
 - (a) Spermatogonia
 - (b) Oogonia
 - (c) Blastomeres
 - (d) Sertoli cells

Answer: (b) Oogonia

Explanation: Oogonia are diploid cells that give rise to primary oocytes.

4. Primary oocytes are arrested in:
 - (a) Metaphase I
 - (b) Prophase I

- (c) Telophase II
- (d) Anaphase II

Answer: (b) Prophase I

Explanation: Primary oocytes remain arrested in prophase I until puberty.

5. A primary oocyte surrounded by granulosa cells forms:
- (a) Corpus luteum
 - (b) Graafian follicle
 - (c) Primary follicle
 - (d) Secondary oocyte

Answer: (c) Primary follicle

Explanation: A primary oocyte enclosed by granulosa cells is called a primary follicle.

6. At puberty, approximately how many primary follicles remain in each ovary?
- (a) 1,000–2,000
 - (b) 10,000–20,000
 - (c) 60,000–80,000
 - (d) 1 million

Answer: (c) 60,000–80,000

Explanation: By puberty, most follicles degenerate and only about 60,000–80,000 remain.

7. The fluid-filled cavity in tertiary follicle is called:
- (a) Blastocoel
 - (b) Antrum
 - (c) Lumen
 - (d) Ampulla

Answer: (b) Antrum

Explanation: The tertiary follicle contains a fluid-filled cavity known as the antrum.

8. Theca is differentiated into:
- (a) Ectoderm and mesoderm
 - (b) Theca interna and externa
 - (c) Cortex and medulla
 - (d) Ampulla and isthmus

Answer: (b) Theca interna and externa

Explanation: The theca layer divides into inner theca interna and outer theca externa.

9. Completion of meiosis I in primary oocyte forms:
- (a) Ovum and sperm
 - (b) Secondary oocyte and first polar body
 - (c) Two ova
 - (d) Blastocyst

Answer: (b) Secondary oocyte and first polar body

Explanation: Meiosis I produces one large secondary oocyte and a small first polar body.

10. The secondary oocyte is:
- (a) Diploid
 - (b) Triploid
 - (c) Haploid
 - (d) Tetraploid

Answer: (c) Haploid

Explanation: Secondary oocyte contains half the chromosome number (23 chromosomes).

11. The menstrual cycle normally lasts about:
- (a) 7 days
 - (b) 14 days
 - (c) 21 days
 - (d) 28 days

Answer: (d) 28 days

Explanation: The average menstrual cycle in human females is about 28 days.

12. Menstrual flow occurs during the:
- (a) Follicular phase
 - (b) Menstrual phase
 - (c) Luteal phase
 - (d) Ovulatory phase

Answer: (b) Menstrual phase

Explanation: Menstrual bleeding occurs during the menstrual phase at the beginning of the cycle.

13. Menstrual flow occurs due to breakdown of:
- (a) Ovary
 - (b) Endometrium
 - (c) Myometrium
 - (d) Placenta

Answer: (b) Endometrium

Explanation: The uterine endometrium breaks down and sheds during menstruation.

14. Menstruation occurs when:
- (a) Ovum is fertilised
 - (b) Implantation occurs

- (c) Ovum is not fertilised
- (d) Pregnancy begins

Answer: (c) Ovum is not fertilised

Explanation: If fertilisation does not occur, hormone levels fall and menstruation begins.

15. During follicular phase, the primary follicles develop into:
- (a) Morula
 - (b) Blastocyst
 - (c) Graafian follicle
 - (d) Corpus albicans

Answer: (c) Graafian follicle

Explanation: During the follicular phase, follicles mature into Graafian follicles.

16. Which hormones stimulate follicular development?
- (a) Oxytocin and prolactin
 - (b) FSH and LH
 - (c) Progesterone only
 - (d) Testosterone only

Answer: (b) FSH and LH

Explanation: FSH mainly stimulates follicle growth, while LH supports maturation and ovulation.

17. The sudden increase in LH level during mid-cycle is called:
- (a) Menstrual surge
 - (b) FSH peak
 - (c) LH surge
 - (d) Ovulation reflex

Answer: (c) LH surge

Explanation: A rapid rise in LH level around day 14 is known as the LH surge.

18. LH surge induces:

- (a) Menstruation
- (b) Implantation
- (c) Ovulation
- (d) Lactation

Answer: (c) Ovulation

Explanation: LH surge causes rupture of the Graafian follicle and release of ovum.

19. The remaining part of Graafian follicle after ovulation forms:

- (a) Morula
- (b) Corpus luteum
- (c) Blastocyst
- (d) Endometrium

Answer: (b) Corpus luteum

Explanation: After ovulation, the ruptured follicle changes into corpus luteum.

20. Menstrual cycles permanently cease around 50 years of age in a phase called:

- (a) Menarche
- (b) Ovulation
- (c) Menopause
- (d) Lactation

Answer: (c) Menopause

Explanation: Menopause is the permanent stoppage of menstrual cycles, usually around 45–50 years of age.

