

# Embryology

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Al mcq

Lecture 5

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1. Which of the following are true about gametogenesis?

- A. It results in the formation of mature sperm or ovum
- B. It increases the chromosome number from haploid to diploid
- C. It involves nuclear and cytoplasmic changes
- D. It occurs only in females

answers: A, C

2. What are the nuclear changes during gametogenesis?

- A. Formation of acrosome
- B. Reduction from diploid to haploid chromosome number
- C. Chromosomal crossover
- D. DNA replication doubling the genome

answers: B, C

3. Which cytoplasmic changes occur during gametogenesis?

- A. Enlargement of cytoplasm in ova
- B. Loss of cytoplasm in sperm
- C. Division of centrosome in zygote
- D. Development of acrosome in oocyte

answers: A, B

4. Where are mature gametes formed?

- A. Brain
- B. Gonads
- C. Testis
- D. Ovary

answers: B, C, D

5. Which of the following structures are part of the male reproductive system?

- A. Epididymis
- B. Fallopian tube
- C. Vas deferens
- D. Seminal vesicle

answers: A, C, D



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1. what does the endometrium become by the end of Day 8?

- (A) thin and non-vascular
- (B) highly vascular with decreased mucus secretion
- (C) highly vascular with glands that secrete more glycogen and mucus
- (D) less vascular with decreased glycogen secretion

answer:c

2. What does the trophoblast differentiate into at the embryonic pole?

- (A) only cytotrophoblast
- (B) inner layer of syncytiotrophoblast and outer layer of cytotrophoblast
- (C) outer layer of syncytiotrophoblast and inner layer of cytotrophoblast
- (D) only syncytiotrophoblast

answer:c

3. How are the cells of the outer layer of syncytiotrophoblast described?

- (A) multinucleated cells with clear cell boundaries
- (B) mononucleated cells with clear cell boundaries
- (C) mononucleated cells without clear cell boundaries
- (D) multinucleated cells without clear cell boundaries

answer:d

4. Into which layers does the inner cell mass differentiate?

- (A) hypoblast layer of cubical cells and epiblast layer of columnar cells
- (B) only epiblast layer
- (C) monomeric cell layer and gem layer
- (D) only hypoblast layer

answer:a

5. What is the amniotic cavity a result of?

- (A) fusion with Cytotrophoblast
- (B) movement away from Epiblast layer
- (C) development within the Hypoblast layer
- (D) appearance within the Epiblast layer

answer:d



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6. At what stage is the blastocyst deeply implanted?

- (A) Day 9
- (B) Day 13
- (C) Day 11 & 12
- (D) End of the 2nd week

answer:a

7. What forms the primary mesoderm on Days 11 and 12?

- (A) remains undifferentiated
- (B) forms only splanchnic mesoderm
- (C) forms only somatic mesoderm
- (D) splits into somatic mesoderm and splanchnic mesoderm

answer:d

8. What differentiates from the syncytiotrophoblast by Day 13?

- (A) earlier stages are repeated
- (B) formation of the 1st villi
- (C) immunity to infections
- (D) formation of the primary mesoderm

answer:b

9. How is the primary yolk sac described?

- (A) a cavity inside the cytotrophoblast
- (B) the cavity of the blastocyst after formation of exocoelomic membrane
- (C) a cavity in the yolk that is untouchable
- (D) a space entirely independent of other embryonic structures

answer:b

10. What differentiates the coronary stage of chorionic villi?

- (A) it only consists of syncytiotrophoblast with no cytotrophoblast
- (B) it contains no lry mesoderm
- (C) it contains a core of lry mesoderm and is covered by outer syncytiotrophoblast and inner cytotrophoblast
- (D) development into fully formed liver tissue

answer:c