

Pathology Lecture 1 – MCQs

1. Which of the following best describes hypertrophy?

- A. Increase in cell number
- B. Decrease in cell size
- C. Increase in cell size
- D. Change from one cell type to another
- E. Cell death due to injury

■ Answer: C. Increase in cell size

2. What is the main cause of cardiac hypertrophy in hypertension?

- A. Viral infection
- B. Increased functional demand
- C. Vitamin A deficiency
- D. Decreased workload
- E. Genetic mutation

■ Answer: B. Increased functional demand

3. Which of the following tissues cannot undergo hyperplasia?

- A. Skeletal muscle
- B. Liver
- C. Epithelium
- D. Uterus
- E. Prostate

■ Answer: A. Skeletal muscle

4. What is the definition of hyperplasia?

- A. Decrease in cell number
- B. Increase in cell number

- C. Increase in cell size
- D. Change in cell type
- E. Cell death

■ Answer: B. Increase in cell number

5. Which of the following is a physiologic example of hyperplasia?

- A. Endometrial hyperplasia due to excess estrogen
- B. Benign prostatic hyperplasia
- C. Breast glandular growth during pregnancy
- D. HPV-induced wart formation
- E. Metaplasia in the esophagus

■ Answer: C. Breast glandular growth during pregnancy

6. Which of the following mechanisms is involved in atrophy?

- A. Increased protein synthesis
- B. Increased degradation of proteins
- C. Increased cell division
- D. Stem cell reprogramming
- E. Increased blood supply

■ Answer: B. Increased degradation of proteins

7. Which of the following best defines metaplasia?

- A. Increase in number of cells
- B. Decrease in cell size
- C. Change from one cell type to another
- D. Cell death due to necrosis
- E. Increased organ size

■ Answer: C. Change from one cell type to another

8. Which vitamin deficiency is associated with squamous metaplasia in bronchi?

- A. Vitamin D
- B. Vitamin B12
- C. Vitamin A
- D. Vitamin C
- E. Vitamin E

■ Answer: C. Vitamin A

9. What is the most common cause of cell injury?

- A. Genetic mutations
- B. Oxygen deprivation
- C. Chemical agents
- D. Physical trauma
- E. Aging

■ Answer: B. Oxygen deprivation

10. Which of the following is a pathologic cause of hyperplasia?

- A. Skeletal muscle growth in athletes
- B. Endometrial hyperplasia due to estrogen
- C. Uterine enlargement during pregnancy
- D. Liver regeneration after partial resection
- E. Atrophy after immobilization

■ Answer: B. Endometrial hyperplasia due to estrogen