

# Pathophysiology Introduction – MCQ Exam

1. The ability of the body to maintain a dynamic internal balance despite external changes is called:
  - A. Pathogenesis
  - B. Degeneration
  - C. Homeostasis
  - D. Dysplasia
2. If a cell experiences severe stress and lacks sufficient cellular reserves, the most likely outcome is:
  - A. Adaptation
  - B. Necrosis
  - C. Hypertrophy
  - D. Hyperplasia
3. Which of the following is considered a cellular adaptive response rather than cellular injury?
  - A. Necrosis
  - B. Metaplasia
  - C. Degeneration
  - D. Cell death
4. Atrophy occurring during aging is primarily associated with:
  - A. Increase in cell number
  - B. Increase in cell size
  - C. Loss of cellular structure and function
  - D. Excessive cellular proliferation
5. A disease identified before a patient develops noticeable symptoms is termed:
  - A. Idiopathic disease
  - B. Chronic disease
  - C. Subclinical disease
  - D. Degenerative disease
6. Which instrument is particularly useful for identifying subtle structural changes within cells?
  - A. Light microscope
  - B. Electron microscope
  - C. Spectrophotometer
  - D. Ultrasonography
7. Which of the following terms refers to the cause of a disease?
  - A. Etiology
  - B. Pathogenesis
  - C. Diagnosis
  - D. Prognosis
8. The sequence of events leading to the development of a disease is called:
  - A. Etiology
  - B. Pathogenesis
  - C. Homeostasis
  - D. Degeneration
9. A disease with no known cause is classified as:
  - A. Idiopathic
  - B. Genetic
  - C. Infectious
  - D. Degenerative

10. Which of the following conditions most directly disrupts homeostasis?
- A. Cellular repair
  - B. Balanced metabolism
  - C. External stressors
  - D. Cellular adaptation
11. Which of the following represents an external stressor affecting homeostasis?
- A. Protein synthesis
  - B. Nutrient deficiency
  - C. DNA replication
  - D. Cellular respiration
12. Cellular degeneration is best described as:
- A. Irreversible cell death
  - B. A type of non-lethal cell damage
  - C. Increase in cell number
  - D. Replacement of one cell type with another
13. Which of the following adaptive changes results in an increase in cell size?
- A. Atrophy
  - B. Hyperplasia
  - C. Hypertrophy
  - D. Dysplasia
14. Which adaptive cellular process results in an increase in the number of cells?
- A. Hypertrophy
  - B. Hyperplasia
  - C. Metaplasia
  - D. Atrophy
15. Replacement of one mature cell type with another mature cell type is called:
- A. Dysplasia
  - B. Hyperplasia
  - C. Metaplasia
  - D. Necrosis
16. Which cellular response is characterized by abnormal cell growth and organization?
- A. Dysplasia
  - B. Hypertrophy
  - C. Hyperplasia
  - D. Atrophy
17. When cells decrease in size due to aging or reduced stimulation, the process is called:
- A. Metaplasia
  - B. Atrophy
  - C. Hyperplasia
  - D. Necrosis
18. Which statement best describes necrosis?
- A. Controlled cellular adaptation
  - B. Programmed cell survival
  - C. Localized and identifiable cell death
  - D. Increased cellular metabolism
19. Cells usually respond to moderate stress initially by:
- A. Immediate necrosis
  - B. Cellular adaptation

- C. DNA destruction
- D. Rapid degeneration

20. If homeostasis is not maintained in the body, the most likely result is:

- A. Normal aging
- B. Disease
- C. Cellular repair
- D. Increased immunity

21. A feedback system in the body consists of:

- A. Hormones and enzymes only
- B. Receptors, control center, and effectors
- C. DNA and RNA
- D. Enzymes and substrates

22. In physiological regulation, receptors primarily function to:

- A. Destroy pathogens
- B. Detect changes in internal conditions
- C. Produce hormones
- D. Transport oxygen

23. Which system tends to amplify physiological responses rather than stabilize them?

- A. Negative feedback
- B. Positive feedback
- C. Homeostatic balance
- D. Adaptive response

24. Which situation best represents disruption of cellular equilibrium?

- A. Stable metabolic activity
- B. Balanced electrolyte levels
- C. Exposure to toxic substances
- D. Normal tissue repair

25. Cellular adaptation occurs mainly when:

- A. Cellular reserves are completely depleted
- B. Cellular reserves are sufficient to maintain function
- C. The cell is already dead
- D. DNA replication stops completely

26. Which process is most likely reversible with prompt treatment?

- A. Necrosis
- B. Degeneration
- C. Apoptosis
- D. Fibrosis

27. The body's effort to maintain stable internal conditions despite environmental changes represents:

- A. Degeneration
- B. Adaptation
- C. Homeostasis
- D. Pathogenesis

28. Loss of cell structure during aging may eventually lead to:

- A. Hyperplasia
- B. Atrophy
- C. Hypertrophy
- D. Dysplasia

29. Which factor below is least likely to disrupt homeostasis?

- A. Injury
- B. Lack of nutrients
- C. Invasion by parasites
- D. Stable metabolic balance

30. Failure of cellular adaptive mechanisms most directly leads to:

- A. Cellular specialization
- B. Cellular death
- C. Enhanced regeneration
- D. Tissue growth

## Answer Key

1. C
2. B
3. B
4. C
5. C
6. B
7. A
8. B
9. A
10. C
11. B
12. B
13. C
14. B
15. C
16. A
17. B
18. C
19. B
20. B
21. B
22. B
23. B
24. C
25. B
26. B
27. C
28. B
29. D
30. B