



**Sohag University**  
**Faculty of Medicine**  
**Pathology Department**



**21/10/2017; Pathology**  
**1<sup>st</sup> part of Master degree in Pathology**  
**Time allowed: Three Hours**

**I. Answer the following question: (25 marks)**

1. Describe types and mode of action of chemical carcinogenes.

**II. Answer the following questions: (10 marks each)**

2. Describe mechanisms of Type II hypersensitivity reaction.
3. Outline the process of angiogenesis and its role in repair.
4. Define hyperplasia; illustrate its types, sites and effects.
5. Define thrombosis, illustrate its causes and mode of formation.

**III. Read the following case scenario and answer the questions below: (20 marks)**

**6. An adult patient complains of cough with expectoration. Chest X ray shows multiple scattered patches in relation to the bronchi. Sputum examination reveals tubercle bacilli.**

- A. What is the most likely diagnosis?
- B. Explain the pathogenesis of this disease.
- C. Describe the microscopic picture of the lung lesion.
- D. Mention the special stain used for demonstration of the organism.

**IV. Choose the best correct answer: (One mark each)**

**1. The most important change in acute inflammation is:**

- |                          |                      |
|--------------------------|----------------------|
| A. Metabolic changes     | D. All of the above  |
| B. Vascular changes      | E. None of the above |
| C. Environmental changes |                      |

**2. The following are examples of non-suppurative inflammation EXCEPT:**

- |                           |                            |
|---------------------------|----------------------------|
| A. Catarrhal inflammation | D. Membranous inflammation |
| B. Serous inflammation    | E. Allergic inflammation   |
| C. Carbuncle              |                            |

**3. Examples of stable cells include all EXCEPT:**

- A. Hematopoietic cells
- B. Parenchymal cells
- C. Mesenchymal cells
- D. Vascular endothelial cells
- E. Endocrine glands

**4. Abnormalities of hemoglobin metabolism occur in:**

- A. Jaundice
- B. Porphyria
- C. Hemochromatosis
- D. Hemosiderosis
- E. All of the above

**5. Fibroblasts secrete:**

- A. Cytokines
- B. Prostaglandins
- C. Procollagen
- D. Proteolytic enzymes
- E. Growth factors

**6. Phagocytosis means:**

- A. Ingestion of foreign material by the red blood cells
- B. Production of phagocytic cells
- C. Ingestion of foreign material by pus cells
- D. None of the above

**7. Toxemia means:**

- A. Presence of bacterial toxins in the blood
- B. Presence of chemical toxins in the blood
- C. Presence of bacteria and their toxins in the blood
- D. Presence of bacterial toxins in the internal organs

**8. Healing by second intention is characterized by all EXCEPT:**

- A. Wound contraction
- B. Abundant granulation tissue
- C. Thin scar
- D. More common complications

- 9. The commonest cause of death in patients with amyloidosis is:**
- A. Cardiac amyloidosis
  - B. Hepatic amyloidosis
  - C. Renal amyloidosis
  - D. Splenic amyloidosis
  - E. Intestinal amyloidosis
- 10. Lepra bacilli can be demonstrated in tissue sections by using:**
- A. Congo red stain
  - B. PAS stain
  - C. Silver impregnation technique
  - D. Modified Ziehl-Nelson stain
  - E. Giemsa stain
- 11. The characteristic histological features of actinomycosis include all EXCEPT:**
- A. Mononuclear cells
  - B. Polymorphonuclear cells
  - C. Pus cells
  - D. Giant cells
  - E. Epithelioid cells
- 12. Schistosomiasis is a dangerous disease because it leads to:**
- A. Formation of intestinal polypi
  - B. Formation of sandy patches
  - C. Hepatic fibrosis and portal hypertension
  - D. Formation of schistosomal antibodies
  - E. Schistosomal splenomegaly
- 13. The characteristic epithelial changes in schistosomiasis of the urinary bladder include all EXCEPT;**
- A. Brunns' nests
  - B. Cell nests
  - C. Cystitis cystica
  - D. Cystitis glandularis
  - E. Squamous metaplasia

**14. Necrosis of the infarct is coagulative in all organs EXCEPT:**

A. Heart

B. Kidney

C. Lung

D. Brain

E. Spleen

**15. Fibroblasts secrete:**

A. Cytokines

B. Prostaglandins

C. Procollagen

D. Proteolytic enzymes

E. Growth factors

**Good Luck**