

UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES PART II–FEBRUARY 2011
PATHOLOGY Paper II

Date: 22.02.2011.

Time: 03 hours

ANSWER ALL THE **TEN** QUESTIONS

Answer each **QUESTION** in separate answer book

1. A patient is found to have a mid-diastolic murmur and is diagnosed as having mitral stenosis. He has a past history of Rheumatic Fever.
 - 1.1. List 2 other possible causes for mitral stenosis. (20 Marks)
 - 1.2. List 2 complications of mitral stenosis. (20 Marks)
 - 1.3. Describe the microscopic and macroscopic changes of the heart in Acute Rheumatic Fever. (50 Marks)
 - 1.4. List 2 other organs / tissues involved in Acute Rheumatic Fever. (10 Marks)

2. A 68 year old known Diabetic patient presented with chronic cough, loss of weight and low grade fever. Chest X Ray revealed upper lobe shadows with cavitation. A clinical diagnosis of pulmonary Tuberculosis was made.
 - 2.1. List 2 investigations that would help to confirm the diagnosis. (20 Marks)
 - 2.2. Describe the pathological features of secondary (post primary) pulmonary Tuberculosis. (40 Marks)
 - 2.3. List 2 other pathological conditions of the lung that can cause granulomatous inflammation. (20 Marks)
 - 2.4. Enumerate the pathological sequelae of secondary pulmonary Tuberculosis. (20 Marks)

3. 40 year old female admitted with lump in the right breast of six months duration.
 - 3.1. Mention 5 physical signs to suggest it's clinically malignant lesion. (20 Marks)
 - 3.2. Explain the above physical signs on the basis of the pathology. (60 Marks)
 - 3.3. What is the significance of receptor studies in breast carcinoma? (20 Marks)

4.
 - 4.1. What laboratory investigations help to diagnose obstructive jaundice? (30 Marks)
 - 4.2. Brief out the pathophysiological changes that occur in obstructive jaundice. (35 Marks)
 - 4.3. Enumerate the causes of cirrhosis of the liver and mention the different macroscopic morphological appearances of the liver in each of them. (35 Marks)

5. A 40 year old male presented with burning epigastric pain related to meals. An endoscopy performed on him revealed an ulcer at gastric antrum. The biopsy done on it revealed a chronic gastric ulcer with no evidence of malignancy.
 - 5.1. Define Peptic Ulcer. (10 Marks)
 - 5.2. Describe the macroscopic and microscopic appearances of peptic ulcer in stomach (gastric ulcer). (40 Marks)
 - 5.3. List 3 natural defenses in the stomach to protect it from gastric acidity. (15 Marks)
 - 5.4. Describe the pathological mechanism of Helicobacter pylori causing peptic ulcer (15 Marks)
 - 5.5. Mention 3 other aetiological agents for peptic ulcer disease (10 Marks)
 - 5.6. Enumerate the complications of peptic ulcer. (10 Marks)

6.
 - 6.1. Define Chronic Kidney Disease. (20 Marks)
 - 6.2. List the common 5 causes of Chronic Kidney Disease. (30 Marks)
 - 6.3. What are the consequences and complications of Chronic Kidney Disease? (50 Marks)

7. A 40 year old female presented with excessive weight gain in spite of decreased appetite. Clinical diagnosis of Hypothyroidism was made.
 - 7.1. List 2 investigations that would confirm the diagnosis. (10 Marks)
 - 7.2. Mention the changes that you would expect in the investigations you mentioned in 7.1 in primary and secondary hypothyroidism. (20 Marks)
 - 7.3. List 5 causes of hypothyroidism. (30 Marks)
 - 7.4. List the clinical manifestations of hypothyroidism in relation to:
 - 7.4.1. Cardiovascular system (20 Marks)
 - 7.4.2. Central nervous system (20 Marks)

8. 8.1. List 5 important differences between benign and malignant tumours. (50 Marks)
8.2. Describe the macroscopic and microscopic appearances of uterine leiomyoma. (40 Marks)
8.3. Mention the name for malignant counterpart of leiomyoma. (10 Marks)

9. A 68 year old man presented with lethargy and shortness of breath on exertion. He mentioned about passing dark colour stools on and off for 6 months. His preliminary investigations revealed;

Hb-5.0g/dl;

MCV- 60fl;

MCH-20pg;

WBC-7000/mm³

Platelets-520,000/mm³

- 9.1. What is the most likely cause for his anaemia? (10 Marks)
9.2. List 2 other causes for microcytic anaemia. (20 Marks)
9.3. List 3 biochemical investigations that you would do to confirm your diagnosis mentioned in 7.1 giving the expected findings (30 Marks)
9.4. Describe the morphology of the red cells expected in his blood film. (30 Marks)
9.5. What is the most likely cause for his thrombocytosis? (10 Marks)

10. A 32 year old lady presented with loss of weight and fatigability of 6 months duration. On examination there was massive splenomegaly.

10.1. List 3 conditions that can give rise to massive splenomegaly. (30 Marks)

10.2. Her investigations showed:

Hb-10g/dl

WBC- 480,000/mm³

Platelets-900,000/mm³

Blood picture revealed marked leukocytosis with full spectrum of myeloid series with peaks in neutrophils and myelocytes. Eosinophilia and Basophilia were seen. Blasts were less than 2 %.

What is the most likely diagnosis? (20 marks)

- 10.3. Mention one investigation from the peripheral blood that would confirm the diagnosis. (20 Marks)
10.4 Briefly explain her massive splenomegaly on the basis of pathology. (30 Marks)