

University of Jaffna, Sri Lanka

Second Examination for Medical Degrees- Part II (2st) December 2012

Pathology: Paper II

Date: 12.12.2012

Time: 3 hours

Answer all the ten questions

Answer each question in separate answer book

1.

- 1.1 .Give a short account on “ Helicobacter pylori” (20marks)**
- 1.2. Briefly describe the pathophysiological mechanism of peptic ulcer disease (30marks)**
- 1.3. Enumerate the factors affecting the wound healing (25marks)**
- 1.4. Discuss briefly the complications of wound healing (25marks)**

2.

- 2.1. Briefly describe the causes and pathogenesis of stone formation in the urinary tract (30marks)**
- 2.2. Briefly discuss the complications caused by the stones in the urinary tract (20 marks)**
- 2.3. Describe the morphology of the kidney in a patient with chronic pyelonephritis (20 marks)**
- 2.4. Describe the pathological features that you would expect in heart and kidney in a patient with an uncontrolled diabetes mellitus for 20 years (30 marks)**

3.

- 3.1. Define the term Meningitis (10 marks)**
- 3.2. List the common organisms responsible for acute pyogenic meningitis in different age groups (25 marks)**
- 3.3. Describe the changes in CSF in 3 different types of meningitis (40 marks)**
- 3.4 .List 5 possible complications of acute pyogenic meningitis (25 marks)**

- 4.**
- 4.1. Define apoptosis (10 marks)**
- 4.2. List the differences and similarities between apoptosis and necrosis (30 marks)**
- 4.3. List 5 common causes of liver cirrhosis (15 marks)**
- 4.4. Outline the pathogenesis of liver cirrhosis (30 marks)**
- 4.5. Name 5 clinical consequences that can arise in a patient with liver cirrhosis (15 marks)**
- 5.**
- 5.1. What is acute appendicitis (15 marks)**
- 5.2. What are the macroscopic appearances during surgery, which support the diagnosis of Acute appendicitis (35 marks)**
- 5.3 Briefly describe the pathological sequence of Acute appendicitis (50 marks)**
- 6. A 68 year old man who has been a heavy smoker for the past 45 years presented with a severe cough with haemoptysis of one month duration. He has also experienced weight lost over the past year. On physical examination he is afebrile. The chest radiograph showed a right perihilar 4cm mass.**
- 6.1. A diagnosis of lung carcinoma was confirmed by histology. What is the most probable histological type of this carcinoma? (10 marks)**
- 6.2. Give 3 other causes for the obstruction of a main bronchus of the lung. (15 marks)**
- 6.3. Briefly describe the pathological (macroscopy & microscopy) features of the lesion you mentioned in 6.1. (30 marks)**
- 6.4. List 5 different type of specimens that can be sent to a histopathology laboratory from this lesion to confirm the diagnosis (15 marks)**
- 6.5. What are the findings you would expect from the above mentioned specimens (30 marks)**

7.

7.1. A patient found to have a pansystolic murmur and diagnosed as having mitral regurgitation

7.1. 1. List 3 possible causes for mitral regurgitation (10 marks)

7.1.2. Describe the macroscopic and microscopic changes of the heart in one of the condition you have mentioned in (7.1.1). (40 marks)

7.2. Briefly discuss the causes and pathological sequelae of thyroid hyperplasia (30marks)

7.3. Briefly describe value of FNAC in thyroid malignancy (10marks)

7.4. Mention the role of tumour markers in thyroid malignancy (10 marks)

8.

A 42 year old male presented with left sided abdominal discomfort of three months duration. He had weight loss and night sweats as well.

On examination, splenomegaly was detected.

Full blood count revealed

Hb 10.1g/ dL

WBC $148 \times 10^3/\mu\text{L}$

(Differential count- Neutrophil 45%, myelocytes 32%, promyelocytes 08%, blast 02%, eosinophils 03%, basophils 02%, lymphocytes 07% and monocytes 01%)

Platelets $621 \times 10^3/\mu\text{L}$

8.1. Mention the most likely cause for his present condition (30 marks)

8.2. Mention one investigation from the peripheral blood that would confirm the diagnosis you mentioned in 8.1. (20 marks)

8.3. Describe the blood picture findings you would expect in the condition you mentioned in 8.1 (30 marks)

8.4. Briefly mention the course and prognosis of the condition you mentioned in 8.1 (20 marks)

9.

A 55 year old man presented with the following full blood count.

Hb – 5.8 g/dl, WBC – 1,100/mm³ Platelets – 20,000/mm³

9.1. Comment on his full blood count. (30 marks)

9.2. List three (3) causes that give rise to a similar full blood count. (15 marks)

9.3 Briefly describe the pathogenesis of one of the conditions that you mention in (9.2) (35 marks)

9.4 .List three (4) clinical signs that are useful in supporting the above full blood count. (20 marks)

10. Mention the aetiology and pathological changes that occur in the following condition

10.1. Uterine tumour of a 25 year old female patient diagnosed as Leiomyoma (25 marks)

10.2. Benign prostatic enlargement in a 70 year old male (25 marks)

10.3. Chronic osteomyelitis (25 marks)

10.4. Chest X ray of a 68 year old patient revealed upper lobe shadows with cavitations (25 marks)