

UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES PART II-DECEMBER 2010
PATHOLOGY Paper II

Date: 15.12.2010.

Time: 03 hours

ANSWER ALL THE TEN QUESTIONS

Answer each **QUESTION** in separate answer book

1. A 68 year old patient presents with a cavitary lesion in the lower lobe of the right lung and is diagnosed as having bronchiectasis.
 - 1.1. Define bronchiectasis. (10 Marks)
 - 1.2. Describe briefly the aetiopathogenesis of bronchiectasis. (40 Marks)
 - 1.3. List 4 complications of bronchiectasis. (30 Marks)
 - 1.4. Name 2 other causes for cavity formation in the lung. (20 Marks)

2. A patient has an enlarged nodular liver and is diagnosed as having cirrhosis. He also has ascites.
 - 2.1. Describe briefly the pathophysiological basis of,
 - 2.1.1 Ascites in cirrhosis. (25 Marks)
 - Nodularity of the liver in cirrhosis. (25 Marks)
 - 2.2. List 3 investigations that would help to establish the aetiology of cirrhosis, stating briefly how each investigation would help. (30 Marks)
 - 2.3. List two investigations that would help to assess the liver functions. (10 Marks)
 - 2.4. List two investigations that you would carry out on the peritoneal fluid of this patient. (10 Marks)

3.
 - 3.1. Define Nephrotic Syndrome. (20 Marks)
 - 3.2. List the investigations that are useful in a patient with Nephrotic Syndrome. (20 Marks)
 - 3.3. What are the possible histopathological lesions of glomeruli seen in Nephrotic Syndrome? (30 Marks)
 - 3.4. List the causes of Membranous Glomerulonephritis. (30 Marks)

4. Write an account on
 - 4.1. Pathogenesis of acute rheumatic fever. (40 Marks)
 - 4.2. Pathogenesis of acute myocardial infarction. (30 Marks)
 - 4.3. Pathogenesis of infective endocarditis. (30 Marks)

5. A 73 year old man was admitted to hospital with the history of passing blood and mucous per rectum of two months duration. Sigmoidoscopy showed a polyp in his sigmoid colon. Endoscopic biopsy revealed villous adenoma with severe dysplasia. Sigmoid colectomy was done. Microscopy showed Adenocarcinoma, Dukes Stage B.
- 5.1. Define the term "Intestinal Polyp". (10 Marks)
 - 5.2. List the classification of intestinal polyps according to the aetiological basis. (20 Marks)
 - 5.3. Briefly describe what is meant by "adenoma - carcinoma sequence". (20 Marks)
 - 5.4. List the factors which influence the malignant risk of adenomas in intestine. (20 Marks)
 - 5.5. Briefly describe the prognostic indicators of colorectal carcinoma. (30 Marks)
- 6.
- 6.1. List the different aetiological agents responsible for causing acute pyogenic meningitis in different age groups. (25 Marks)
 - 6.2. Describe the macroscopic and microscopic changes in the cerebrospinal fluid in,
 - 6.2.1 Pyogenic meningitis (25 Marks)
 - 6.2.2 Tuberculous meningitis (25 Marks)
 - 6.2.3 Viral meningitis (25 Marks)
7. A 70 year old vegetarian presents with shortness of breath on exertion. On examination he is pale. He also complains of paraesthesia. His preliminary investigations showed:
- Hb – 7 g/dl
WBC – 4,500/mm³
Platelets – 150,000/mm³
- He is suspected to have megaloblastic anaemia.
- 7.1. List 2 abnormalities that you would see in the blood picture of this patient? (10 Marks)
 - 7.2. List 3 investigations you would do in this patient to confirm his diagnosis? (15 Marks)
 - 7.3. State the expected findings of the investigations that you mention in 7.2. (15 Marks)
 - 7.4. Briefly state the pathogenesis of his megaloblastic anaemia. (50 Marks)
 - 7.5. How would you treat this patient? (10 Marks)

8. A 5 year old child presents with fever of 5 days duration. On examination he is found to be pale, febrile and has petechiae over his abdomen. He is suspected to have Acute Leukaemia.
- 8.1. List the main abnormalities that you would see in a full blood count of this child? (20 Marks)
 - 8.2. List the main abnormalities that you would see in a blood picture of this child? (15 Marks)
 - 8.3. What are the main types of acute leukaemia? (10 Marks)
 - 8.4. What is the most common type of acute leukaemia that you expect to see in this child? (05 Marks)
 - 8.5. What methods are available for differentiating the types of leukaemia that you mention in 8.4? (15 Marks)
 - 8.6. List 3 other physical signs that you would look for in this patient. (15 Marks)
 - 8.7. Briefly explain the reasons for ,
 - 8.7.1 Petechiae (10 Marks)
 - 8.7.2 Pallor (10 Marks)
9. A patient underwent cholecystectomy for cholecystitis.
- 9.1 What macroscopic features help the surgeon to differentiate the acute cholecystitis from chronic cholecystitis? (35 Marks)
 - 9.2. Briefly describe the pathological sequelae of acute cholecystitis (50 Marks)
 - 9.3. List three investigations with interpretations to aim the biochemical diagnosis of Obstructive Jaundice. (15 Marks)
10. 10.1. The Fine Needle Aspiration Cytology (FNAC) reports of solitary nodule of thyroid from two Patients revealed "Follicular Neoplasm" and "Papillary Carcinoma" respectively.
- 10.1.1. Describe the microscopic features of Follicular carcinoma of the thyroid in a tissue biopsy (25 Marks)
 - 10.1.2. Describe the microscopic features of Papillary carcinoma of the thyroid in a tissue biopsy (25 Marks)
 - 10.1.3. Based on the microscopic features mentioned in 10.1.1 and 10.1.2 describe why papillary Carcinoma can be diagnosed on FNAC, but diagnosis of Follicular carcinoma needs tissue biopsy (20 Marks)
- 10.2. Enumerate the Para-neoplastic presentations of Renal Cell Carcinoma (30 Marks)