

UNIVERSITY OF JAFFNA
FACULTY OF MEDICINE

SECOND EXAMINATION FOR MEDICAL DEGREES – PART II AUGUST 2010

PATHOLOGY PAPER - II

Time allowed : 3 Hours
9am – 12 pm

Date: 05/04/2010

Answer all ten questions

Answer each part in separate answer book

Part A

1. A 35 year old woman presents with lethargy and shortness of breath on exertion. On examination, she is found to be pale, has no generalized lymphadenopathy or hepatosplenomegaly. Her FBC findings are given below:
 - Hb – 7.0 g/dl
 - MCV – 65 fl
 - MCH – 22 pg
 - WBC – 7,000/mm³
 - Platelets – 300,000/mm³
 - 1.1. What morphological type of anaemia does she have? (10 Marks)
 - 1.2. What are the possible causes for such an anaemia? (20 Marks)
 - 1.3. List 3 investigations you would do to confirm your diagnosis, giving the expected findings? (30 Marks)
 - 1.4. How would you treat this patient? (20 Marks)
 - 1.5. How would you assess her response to therapy? (10 Marks)
 - 1.6. What are the commonest causes for treatment failure? (10 Marks)

2. A 40 year old man presented with tiredness, loss of weight and loss of appetite. On examination he was found to be pale and had multiple small bruises over his arms and legs. His full blood count was as follows:
 - Hb – 7 g/dl, WBC – 1500/mm³, Platelets – 50,000/mm³
 - 2.1. Comment on his full blood count. (25 Marks)
 - 2.2. List 3 possible causes for the above full blood count report. (15 Marks)
 - 2.3. List 2 investigations which you would do on this patient giving reasons for performing each test. (40 Marks)
 - 2.4. List 2 complications that this patient may have if he doesn't receive appropriate treatment. (20 Marks)

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Part B

3. 3.1. Define "aneurysm". (10 Marks)
3.2. Classify aneurysms. (40 Marks)
3.3. Describe the clinical presentations of an abdominal aneurysm and the underlying pathological basis. (50 Marks)
4. 4.1. List 4 conditions that give rise to ulceration of the gastrointestinal tract. (20 Marks)
4.2. Describe how you would differentiate between two of the conditions that you have mentioned in 3.1 above. (60 Marks)
4.3. Mention four investigations useful in the diagnosis of gastrointestinal ulceration. (20 Marks)
5. 5.1. Give 3 causes for the obstruction of a main bronchus of the lung. (15 Marks)
5.2. Describe the pathology of the one of the causes mentioned in 4.1. (35 Marks)
5.3. Describe the pathological changes seen in the surrounding lungs. (50 Marks)
6. A focal lesion of the left lobe of the liver is identified on ultra sound scanning
6.1. Give 3 possible causes for the above. (30 Marks)
6.2. Describe the pathology of one of the lesions mentioned. (50 Marks)
6.3. List 2 methods that can be used for a definitive diagnosis. (20 Marks)

Part C

7. 7.1. Briefly describe organotrophism and homing of malignant tumour cells. (25 Marks)
7.2. Describe how tumour cells spread in the following malignant tumours.
7.2.1. Papillary carcinoma of the thyroid. (25 Marks)
7.2.2. Gastric carcinoma. (25 Marks)
7.2.3. Malignant melanoma. (25 Marks)

Part D

8. 8.1. Describe the pathogenesis of acute coronary syndrome (ACS). (20 Marks)
8.2. Describe the microscopic and macroscopic changes that take place in the myocardium following myocardial infarction. (50 Marks)
8.3. Write an account on the biomarkers of myocardial injury. (30 Marks)

Part E

9. A 32 year old boy was admitted to ward with a complaint of reduced urine output, haematuria and facial puffiness for three days duration. There is neither sore throat nor skin sepsis in the recent past. On examination he has mild ankle oedema and his blood pressure was 160/100.
- 9.1. What is the clinical diagnosis? (20 Marks)
- 9.2. What are the further information you would ask in the history and look for in the examination? (30 Marks)
- 9.3. List the possible investigations that would help in identifying the aetiology? (20 Marks)
- 9.4. If renal biopsy is done, what histological findings will be expected? (30 Marks)

Part F

- 10 10.1. A 70 year old man presented to the surgical casualty ward with left sided lower abdominal pain and fever for 3 days. Examination revealed tenderness over left iliac fossa. A CT scan examination performed on him revealed small out pouches at the sigmoid colon with no evidence of fluid or gas in peritoneal cavity.
- 10.1.1. What is the most possible diagnosis in this patient? (10 Marks)
- 10.1.2. Briefly describe the pathogenesis of this condition. (20 Marks)
- 10.1.3. Outline the possible complications of this disease. (20 Marks)
- 10.2. Enumerate the pathological features differentiating Crohn's disease from ulcerative colitis. (50 Marks)