

UNIVERSITY OF JAFFNA, SRI LANKA

SECOND EXAMINATION FOR MEDICAL DEGREES - December- 2019

Pathology -Paper II

Date: 19.12.2019

Time: 3 hours

Answer all Ten questions.

Answer each QUESTION in a separate answer book



1. A 35 year old patient presented with blood and mucous diarrhea and abdominal pain. Endoscopy revealed multiple ulcers and polypoid elevations of the mucosa.
 - 1.1. Name two possible causes for the above presentation. (10 Marks)
 - 1.2. Describe the macroscopic and microscopic appearance of one of the conditions mentioned in 1.1. (40 Marks)
 - 1.3. Name three complications that may follow the conditions mentioned in 1.1. (25 Marks)
 - 1.4. Name five extra-colonic manifestations of the conditions mentioned in 1.1. (25 Marks)

2. Mention two aetiologies/risk factors and pathological changes (macroscopy and microscopy) in the following conditions.
 - 2.1. Leukoplakia of the oral cavity. (25 Marks)
 - 2.2. Adenocarcinoma of the oesophagus. (25 Marks)
 - 2.3. Endometrial adenocarcinoma. (25 Marks)
 - 2.4. Squamous cell carcinoma of lung. (25 Marks)

3. A 25 year old woman was seen at the surgical clinic and was found to have a mobile lump over the right forearm.
 - 3.1. Name three possible causes for the lump. (15 Marks)
 - 3.2. List the features (Macroscopic and microscopic) useful to differentiate benign and malignant tumours. (50Marks)
 - 3.3. Define metastasis. (10 Marks)
 - 3.4. Briefly describe the steps of metastasis including the molecular basis. (25 Marks)

4. A 45 year old male was admitted to the accident service unit of the teaching hospital Jaffna following a road traffic accident. On examination the thigh skin was lacerated leaving a gap exposing crushed skeletal muscle tissue.
- 4.1. State the different types of wound healing. (10 Marks)
- 4.2. Describe briefly illustrating with a diagram the type of wound healing that will take place in this patient. (35 Marks)
- 4.3. Briefly describe the factors which affect wound healing. (25 Marks)
- 4.4. What is a callus? (05 Marks)
- 4.4. Briefly describe how a callus is formed. (25Marks)
5. A 48 year old diabetic patient presented with recurrent episodes of urinary tract infection, fever and tenderness in the left loin.
- 5.1. Mention two risk factors in this patient for the above symptoms. (10Marks)
- 5.2. Mention the radiological and laboratory investigations indicated to arrive at a diagnosis. (10 Marks)
- 5.3. State the possible diagnosis. (10 Marks)
- 5.4. Describe the macroscopic and microscopic appearance of the kidney in the condition you mentioned in 5.3. (70 Marks)
6. 6.1. Define a thrombus. (10 Marks)
- 6.2. Describe briefly the composition of an ante mortem thrombus. (20 Marks)
- 6.3. Mention the sequelae of thrombus. (30 Marks)
- 6.4. Mention the different type of emboli and their clinical effects. (40 Marks)



7. An infant was presented with failure to thrive, pallor, and hepatosplenomegaly. Clinician suspected possibility of beta thalassaemia major.
- 7.1 Define haemolytic anaemia and outline the classification of haemolytic anaemia. (25 Marks)
- 7.2 List four laboratory tests with expected findings which are useful to confirm presence of haemolytic anaemia. (20 Marks)
- 7.3 Outline the pathological basis for anaemia in thalassaemia. (30 Marks)
- 7.4 State the pathological basis for hepatosplenomegaly in thalassaemia. (25 Marks)
8. A patient in intensive care unit manifested purpura and ecchymosis. He had poorly controlled diabetes Mellitus and sepsis due to a leg wound. Results of the initial tests performed to assess haemostasis are given below.
PT (prothrombin time) -24 seconds (control 12 seconds)
APTT (activated partial thromboplastin time)- 60 seconds (control 34 seconds)
Platelet count -50,000/ μ L
- 8.1 State the most likely diagnosis/condition? (10 Marks)
- 8.2 List five different diseases/conditions which can predispose to the diagnosis/condition you stated. *in 8.1* (15 Marks)
- 8.3 List three tests (except blood picture) useful to confirm the diagnosis and indicate expected findings. (15 Marks)
- 8.4 State the peripheral blood picture findings expected in this patient. (20 Marks)
- 8.5 Outline the pathological basis for bleeding manifestations in this condition. (30 Marks)
- 86 State the sample collected from patients for PT/APTT. (10 Marks)

9. **Mention**

- (i) **One differential diagnosis, (10)**
- (ii) **Two(02) risk factors,(10)**
- (iii) **Two(02) laboratory investigation (10), including the type of specimen (05) and expected findings(05)**
- (iv) **Two (02) complications of the following conditions (10)**

9.1 A 68 year old man developed fever with chills and productive cough of four days duration. The sputum was thick and yellow with streaks of blood. He developed pain in his right chest that intensifies with inspiration for last on day (50Marks)

9.2 A 14 year old girl presented with fever, headache and neck- stiffness of three days duration. (50arks)

10. A 30 year old woman presented with a solitary nodule in the left lobe of the thyroid region of 6 months duration.

10.1 List three differential diagnosis for this condition. (15 Marks)

10.2 Mention the investigations which helps to differentiate the conditions you mentioned in 10.1 and indicate the expected findings. (30 Marks)

10.3 Mention the microscopic appearance of the conditions you mentioned in 10.1 (45 Marks)

10.4 Mention two (02) long term complications that may occur following thyroidectomy (10Marks)