



UNIVERSITY OF JAFFNA - SRI LANKA  
FACULTY OF MEDICINE  
FINAL EXAMINATION FOR MEDICAL DEGREES – JUNE 2020

MEDICINE PAPER II

DATE: 15.06.2020

Time: 3 HOURS

Answer ALL TEN (10) Questions.

Answer each question in separate answer book.

- 01 A 45-year-old woman presents with tiredness on exertion and lethargy of 3 months duration. She is suspected to have moderate anaemia.
- 1.1 Write 5 different physical examination findings in the abdomen and their relevant etiological cause of anaemia. (20 marks)
- 1.2 If this patient has constipation, write 2 possible aetiological causes for her anaemia. (10 marks)
- 1.3 On general examination, she is pale and having thinning of nails with spooning.
- 1.3.1 List the investigations you need to do and write the expected findings for each. (40 marks)
- 1.3.2 Outline the treatment of her anaemia. (30 marks)
- 02 A 65-year-old male with a history of heavy smoking presents to the emergency department with shortness of breath of 5 days duration. He had several similar admissions in the past. On examination, his pulse rate is 102 bpm regular, BP 110/60 mmHg, SPO<sub>2</sub> 81% on room air, bilateral diffuse wheeze with few crackles and bilateral leg oedema.
- 2.1 List two important causes for his worsening of shortness of breath. (10 marks)
- 2.2 How will you differentiate above two conditions by performing further clinical assessment? (20 marks)
- 2.3 How will you manage this patient at emergency department? (40 marks)
- 2.4 The patient has not shown significant clinical improvement with the initial treatment. His repeat ABG is as follows;  
pH 7.12  
PaO<sub>2</sub> – 53 mmHg  
PaCO<sub>2</sub> – 84 mm Hg  
HCO<sub>3</sub> – 32 meq/l  
SaO<sub>2</sub> – 76%
- What is the complication patient has developed? (10 marks)
- 2.5 What measures will minimize repeated hospital admissions of this patient? (20 marks)

- 03.** A 30-year-old male presents with low back pain of 6 months duration which is worse in the mornings. He is a postman and is able to manage his duties during the daytime. He was treated for painful red eye by an ophthalmologist 2 years ago.
- 3.1 What is the most likely diagnosis and write three other differential diagnoses? (20 marks)
- 3.2 List the physical signs you would look for, in each clinical diagnosis you have mentioned in 3.1 (30 marks)
- 3.3 List the investigations you would perform in this patient and write the expected findings. (30 marks)
- 3.4 List six complications he may develop in the future. (20 marks)
- 04.** A 55-year-old previously unevaluated male presents with exertional chest discomfort and shortness of breath of two weeks duration. He used to smoke 10-15 cigarettes a day. His blood pressure is 170/110 mmHg on repeated occasions. A 12 lead ECG shows left ventricular hypertrophy (LVH).
- 4.1 Write the diagnostic criteria of Left Ventricular Hypertrophy (LVH) on a 12-lead ECG? (15 marks)
- 4.2 Name 3 causes of Left Ventricular Hypertrophy other than hypertension. (15 marks)
- 4.3 Name 2 possible cardiac conditions for his clinical presentation and write two relevant investigations essential for further evaluation. (20 marks)
- 4.4 What is the best choice of antihypertensive medication for this patient? (10 marks)
- 4.5 Name 2 blood tests you would perform before commencing the medication you mentioned in 4.4 (10 marks)
- 4.6 How will you further evaluate for hypertension related Target Organ Damage(TOD) in this patient? (30 marks)





05. A 19-year-old school boy was playing cricket and suddenly clutched the back of his head and said that he felt the worst pain he had experienced in his life just like someone had struck the back of his head. It resolved spontaneously. Five days later as he was playing for his school big match he fell down. Other players had noticed him clutching the back of his head while falling down. On arrival to Accident & Emergency, examination reveals that he is afebrile, non-responsive except for eye opening to deep pain, non-comprehensible speech and localization of pain. He has mild nuchal rigidity. Pupils are equal and reactive to light. His other vitals are stable.
- 5.1 What is the most likely diagnosis? (10 marks)
- 5.2 How would you confirm your diagnosis? (10 marks)
- 5.3 What is the GCS of this patient? (10 marks)
- 5.4 What is the management of this patient within the first 48 hours? (60 marks)
- 5.5 List five neurological complications he may develop. (10 marks)
06. A 50 year old farmer who has been engaging in harvesting the paddy presents with lowgrade fever, myalgia, arthralgia and abdominal pain of one week duration. He has noticed that his urine is highly coloured and reduced amount for last one day. On examination he is febrile, icteric and has pulse rate of 108 bpm, BP 90/60 mm Hg. Abdominal examination reveals diffuse tenderness without guarding and rigidity. Auscultation of lungs reveal few bilateral crackles.
- 6.1 What is the most likely diagnosis and write two differential diagnosis? (20 marks)
- 6.2 How will you confirm the most likely diagnosis? (10 marks)
- 6.3 What abnormalities are expected in the following investigations considering the most likely diagnosis? (20 marks)
- a. FBC
  - b. UFR
  - c. ECG
  - d. CPK
- 6.4 Outline the management of this patient for first 24 hours? (50 marks)

07. A 28 year old female presents with letharginess and exertional tiredness. On examination, her pulse rate is 48/minute regular and stony dullness is noted over the right lower chest. Her investigations reveal:  
 Hb 8.8 g/dl  
 MCV 102 fl  
 WBC 3000/mm<sup>3</sup>, N-70, L-28, Platelets – 140,000/mm<sup>3</sup>  
 ESR 24mm 1<sup>st</sup> hour  
 TSH 78  $\mu$ IU/ml
- 7.1 What is the most likely diagnosis that will explain all her clinical problems? (10 marks)
- 7.2 List 5 other physical signs you will elicit to support your diagnosis. (10 marks)
- 7.3 What are the possible causes for her tiredness? (10 marks)
- 7.4 What is the most probable reason for the haematological abnormalities (10 marks)
- 7.5 Write the expected abnormalities in the following investigations for this patient. (25 marks)
- a. ECG                      b. CXR  
 c. Blood picture        d. USS Thyroid  
 e. Lipid profile
- 7.6 Outline the management of this patient. (35 marks)
08. A 56 year-old male has been transferred from local hospital for further management of fluid overload and worsening renal impairment. Patient has been a diabetic and hypertensive for more than 15 years and his glycaemic control was poor throughout.  
 On examination, patient is dyspnoeic and is not able to lie flat. His blood pressure is 170/100 mm Hg. There is pitting oedema upto mid-thigh level. Breath sounds are reduced bilaterally with no added sounds. His initial investigations show:  
 Hb – 7.6 g/dl  
 Serum creatinine - 920  $\mu$ mol/l.  
 UFR – Protein - +++ , Red cells – nil
- 8.1 What are the other important investigations you would request in this patient? (20 marks)
- 8.2 How would you manage fluid overload in this patient? (30 marks)
- 8.3 What are the physical signs would you look for to assess the complications related to diabetes mellitus? (20 marks)
- 8.4 Further examination reveals a 5cm x 4cm black colour ulcer with necrotic base and definite margin on the left lateral aspect of the thigh. It was firm in consistency and tender. What is the likely diagnosis? (10 marks)
- 8.5 He is expecting a AV fistula creation in 4 weeks time. What advices will you give before the discharge of this patient? (10 marks)
- 8.6 What information would you like to gather from a potential donor to recommend to initiate donor evaluation for kidney transplantation? (10 marks)





09. A 34-year-old male presented in 2012 with a history of blood and mucus diarrhoea of 8 months duration and it was associated with loss of weight of 10 kg.
- 9.1 Write 3 differential diagnoses for the above presentation. (15 marks)
- 9.2 How would the physical examination findings help to differentiate the diagnoses mentioned in 9.1 (30 marks)
- 9.3 How do you investigate this patient? (30 marks)
- 9.4 A diagnosis was made following initial evaluation and he was initiated with medication without any surgical intervention. He made a good response with treatment, however he has not been taking medications since 2018. Again this time, he presents with progressive yellow discolouration of eyes, pruritus, pale stool and dark urine of 2 months duration.
- 9.4.1 What is the diagnosis for current presentation? (10 marks)
- 9.4.2 What are the investigations you will perform to arrive at a diagnosis? (15 marks)
10. A 45-year-old previously healthy male (weighing 50 kg) presents with ingestion of 30 x 500 mg standard release paracetamol tablets taken 4 hours before admission under influence of alcohol. He denies any previous alcohol consumption. He appears well and is cooperative. A physical examination reveals smell of liquor but is otherwise normal.
- 10.1 Do you perform following decontamination procedures for this patient and justify your answers. (15 marks)
- Gastric lavage
  - Activated charcoal
  - Induce emesis
- 10.2 List 5 investigations you will perform on admission and give reasons. (20 marks)
- 10.3 How do you treat this patient for the first 24 hours? (45 marks)
- 10.4 Does his alcohol ingestion increase his risk of hepatotoxicity caused by paracetamol and briefly explain your answer? (10 marks)
- 10.5 There is a significant difference noted in the measured and calculated serum osmolality of this patient. How do you explain this finding? (10 marks)