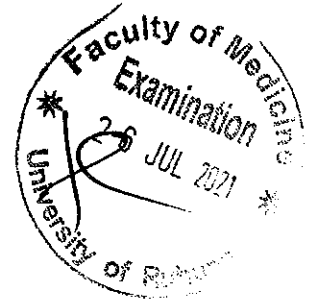


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**FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
FINAL EXAMINATION FOR MEDICAL DEGREES – July 2021
MEDICINE PAPER 1**

26th July 2021

(1.00 – 4.00pm) 3 hours

Index Number:

Instructions:

1. Write your index number in all the pages.
2. Answer all questions.
3. Write your answers in the space given after each part of the question.
4. The space given is adequate for the expected answer.
5. Please return the question book at the end of the examination.
6. Normal values are given within brackets.

1.

A 20-year-old man presents with three-day history of abdominal pain, vomiting and breathlessness. He has lost about 10 kg over the past few weeks and complains of muscle cramps and excessive thirst. Examination reveals a conscious, dehydrated and tachypnoeic young man with a body weight of 40 Kg. His pulse rate is 110 / min with a blood pressure of 100 / 70 mm Hg. Abdomen is soft and non-tender without organomegaly. Lung fields are clear with peripheral oxygen saturation of 98% on room air. On admission his capillary blood glucose is 567 mg/dL.

A. What is the most likely diagnosis? (10 marks)

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B. What is the cause for tachypnoea? (5 marks)

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C. List five (5) urgent investigations you would request to manage this patient on admission. (20 marks)

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D. Mention three (3) essential treatments you would commence in this patient within the first hour after admission. (15 marks)

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E. List three (3) clinical and three (3) biochemical parameters you would closely monitor in this patient within the first six hours after admission. (20 marks)

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F. List three (3) life-threatening complications that can occur during the treatment of this patient. (10 marks)

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G. Briefly describe the specific drug treatment for this patient at the time of discharge. (20 marks)

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2.
A 45-year old previously healthy woman presents with swelling of the right leg for 3 days duration. There is no associated fever. Examination reveals swelling of whole right leg with tenderness over the calf region. There is no associated redness over the affected area.

A. What is the most likely diagnosis? (10 marks)

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B. List two (2) investigations that can be used to diagnose the condition mentioned in A. (10 marks)

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C. Mention five (5) underlying aetiologies for the diagnosis mentioned in A. (15 marks)

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D. Mention three (3) clinical features that are useful in diagnosing the underlying aetiologies mentioned in C and state their relevance. (15 marks)

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E. List five (5) investigations with their expected findings that are useful to diagnose the conditions mentioned in C. (15 marks)

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F. Discuss in brief the acute management of the condition mentioned in A. (15 marks)

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G. Discuss in brief the long term management of the condition mentioned in A. (20 marks)

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3.

A 28-year old man presents with fever, headache and body aches for three days. On examination, he is febrile and flushed, and has pulse rate of 102/min and blood pressure of 110/65mmHg. Abdominal and respiratory systems examination is unremarkable. Investigations on admission are shown below.

Haemoglobin	14g/dL (12-16.5)
PCV	44
White cell count	3200/mcL with 70% lymphocytes
Platelets	132000/mcL (150000-450000)
AST	74 U/L (5-40)
ALT	55U/L (7-45)
UFR	pus cells 3-5/HPF, red cells -1-2/HPF

A. What is the most likely diagnosis? (10 marks)

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B. What investigation would confirm the diagnosis? (10 marks)

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C. On the third day of the admission, he became restless with profuse sweating. On examination, he is afebrile and has cold, clammy peripheries and low volume pulse with a rate of 110/min and blood pressure of 100/80mmHg. Investigations reveals

Haemoglobin	16.5 g/dL (12-16.5)
PCV -	55
White cell count	1200/mcL with 70% lymphocytes
Platelets	53 000/mcL (150000-450000)

a. What is the current clinical condition? (10 marks)

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b. What is the likely pathological process leading to the condition mentioned in "a"? (10 marks)

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D. Describe the management of this patient. (40 marks)

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E. Patient recovers with the treatment. However, 12 hours later his blood pressure is recorded as 82/64 mmHg and PCV is 47. What is the reason for this deterioration? (10 marks)

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F. What is the life saving measure in this situation? (10 marks)

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4.

A 55-year old man presents with weakness of both lower limbs for one day.

A. Give five (5) differential diagnoses for the above presentation. (25 marks)

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B. State five (5) clinical features that you would look for to differentiate among the causes you mentioned in A. (30marks)

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The patient developed weakness of both upper limbs 3 days later. The reflexes were absent in all four limbs.

C. What is the most likely diagnosis? (10 marks)

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D. Give two (2) specific investigations to confirm the diagnosis giving expected results. (20 marks)

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E. Give two (2) therapeutic modalities that can be used to treat this patient. (10 marks)

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F. State two (2) possible complications of the condition mentioned in C. (5 marks)

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5.

A 54-year old man presents with ankle edema and abdominal distension for one month. He is icteric, pale and the abdominal examination reveals splenomegaly and ascites.

A. What is the most likely diagnosis? (10 marks)

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B. List five (5) possible aetiologies for the diagnosis mentioned in A. (15 marks)

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C. State one (1) supportive/confirmatory investigation for each of the aetiologies mentioned in B. (15 marks)

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The consultant sees the patient and agrees with your diagnosis that the patient has COPD.

C. Describe five (5) important steps in the treatment of the patient in the ward. (20marks)

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D. Patient becomes drowsy two hours after starting the treatment. But his respiratory rate is 22/min and SaO2 is now 90. What is the most important immediate investigation and what features in that would you look for? (10marks)

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E. What is the immediate management of the patient at this moment? (10marks)

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F. Describe five (5) important steps in the long term management. (20marks)

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7.

A 40-year old man presents to medical clinic with the history of chest pain when climbing stairs. His father died suddenly at the age of 43 years and elder brother living in Australia is being investigated for palpitation and chest pain. His fasting glucose done two days before is 115mg/dL and total cholesterol is 325mg/dL Family doctor has found his blood pressure to be normal.

A. Name two (2) possible diseases that can explain his symptoms. (20 marks)

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B. List three (3) physical signs that you would look for to support the diseases mentioned in A and indicate their relevance. (30 marks)

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C. List four (4) investigations that help in the long-term management of this patient and indicate their relevance. (20 marks)

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D. Name three (3) drugs you would prescribe for this patient and indicate the pharmacological basis for such prescribing. (30marks)

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D. Outline the management of her condition mentioned in A (30 marks)

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Three years later, while on treatment, she presents with shortness of breath on exertion for one month. Examination of respiratory system reveals bi-basal fine crepitations.

E. Mention two (2) possible causes for her shortness of breath. (10 marks)

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F. Mention two investigations that are useful to confirm the diagnoses mentioned in E. (10 marks)

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