



**FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
FINAL EXAMINATION FOR MEDICAL DEGREE – MARCH 2019
MEDICINE PAPER 1**

18th March 2019

(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. Required normal values are given within brackets.**

While the patient was on treatment, patient suddenly developed intense pruritus and dizziness and his blood pressure dropped to 74/40 mmHg.

- 1.3 Describe in brief the steps of the management of this acute complication. (30 marks)

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2. A 78-year old man with diabetes and hypertension for 20 years, complains of shortness of breath for three days. He has woken up with cough and difficulty in breathing three days ago and has remained short of breath since then. He has had a fall 6 days ago and fractured lower end of left fibula. After POP cast, he has been advised to bed-rest for 4 weeks.

- 2.1 List three (3) differential diagnoses for the shortness of breath in this patient. (15 marks)

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2.4 Describe the steps in the management of one of the conditions mentioned in 2.1 (20 marks)

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3) A 24-year old man with type 1 diabetes was brought to the emergency department with progressive drowsiness over two hours. On admission his Glasgow coma score was 08/15 and had pulse rate 110 / min and blood pressure of 100/ 60 mm Hg. He was afebrile and had SpO₂ of 98% and capillary blood glucose of 32 mg/ dL.

3.1 What emergency treatment is indicated for this patient on admission? (10 marks)

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3.2 List four (4) likely causes for the observed blood glucose value on admission in this patient. (20marks)

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Upon initial resuscitation, the patient's level of consciousness did not improve, and he remained drowsy. Investigations requested on admission revealed following results.

Haemoglobin 10.5 g/dL, Total White cell count – 7200/ mm³, with neutrophils 52%, lymphocytes 23% and eosinophils 13% , platelets – 258,000/ mm³

Serum sodium – 122 mmol/ L, Serum potassium – 5. 1 mmol/ L, Blood urea- 15 mg/ dL,

Random blood glucose – 45 mg/ dL

- 3.3 Based on the above laboratory findings and the poor response to initial management, what other illness in addition to type 1 diabetes is likely to be present in this patient? (10 marks)

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- 3.4 List three (3) physical signs you would elicit in this patient in support of the condition mentioned in 3.3. (30 marks)

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- 3.5 Name one (1) investigation with expected findings that would confirm the diagnosis mentioned in 3.3. (20 marks)

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- 3.6 What therapy, in addition to insulin is required for this patient in the long-term treatment? (10 marks)

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4) A 32-year old woman presented with two months history of multiple joint pains, involving both small and large joints. Her symptoms did not respond to simple analgesics.

4.1 List three (3) differential diagnoses for this presentation. (15 marks)

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4.2 Mention two (2) features in the history in support of each of the conditions mentioned in 4.1. (15 marks)

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4.3 List one (1) investigation each you would request in this patient to support or confirm the conditions mentioned in 4.1. (15 marks)

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4.4 Describe the steps in the long-term management of one of the conditions listed in 4.1. (40 marks)

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4.5 One year after the diagnosis and commencing therapy, patient's haemoglobin was found to be 6g/ dL. List three (3) likely causes for the low haemoglobin while on treatment for any of the conditions mentioned in 4.1 (15 marks)

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5. A 67-year old man presented to the Out Patient Department of TH Karapitiya with cough, right side pleuritic type chest pain and fever for 5 days duration. On examination his Glasgow Coma Scale was 15. He was dyspnoeic with a respiratory rate of 34 per minute, pulse rate is 100 per minute, blood pressure of 100/70 mmHg. On auscultation, bronchial breathing and crepitations were heard over the right lower zone.

Investigations revealed;

Haemoglobin - 11g/dL, WBC – 12500 /mm³, Platelet count - 22500/mm³, CRP -89 mg/l (normal <6), Blood urea - 6.5 mmol/L, serum sodium -129mmol/L, potassium -3.8 mmol/L

Chest radiograph – right lower zone opacification with obliteration of the diaphragmatic margin.

5.1 What is the most likely diagnosis? (10 marks)

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5.2 Based on the clinical features and investigations, comment on the severity of the condition mentioned in 5.1 (10 marks)

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5.3 Briefly outline the management of this patient.

(30 marks)

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5.4 Despite 7 days of treatment, he continued to have high fever spikes. List four (4) possible reasons for continuation of fever in this patient

(20 marks)

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5.5 List four (4) investigations that you would perform at this stage and indicate how they are useful in differentiating reasons mentioned in 5.4

(30 marks)

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6. A 35-year old executive officer is admitted with weakness of all four limbs for two days. On examination he has flaccid weakness of upper and lower limbs.

6.1 Give three (3) differential diagnoses for his problem. (15 marks)

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6.2 List three (3) clinical features each, which will support the three differential diagnoses mentioned in 6.1 (30 marks)

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6.3 List one (1) investigation each that will confirm the three diagnoses mentioned in 6.1.(15 marks)

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6.4 Briefly discuss the management of one of the conditions mentioned in 6.1 (40 marks)

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7.2 List four (4) haematological investigations, which would help in differentiating the types of anaemia mentioned in 7.1 and state expected findings. (20 marks)

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His subsequent biochemical investigations revealed the following results;
Serum ferritin - 10 ng/mL (normal 12 - 300 ng/mL)

Serum B12 level- 168 pmol/L (normal > 118 pmol/L)

7.3 List two (2) steps in treating this patient's anaemia. (20 marks)

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7.4 List three (3) factors you would assess with regard to the treatment of anaemia at subsequent clinic visits. (30 marks)

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8. A 44- year old previously healthy man complained of diarrhea and loss of weight for 03 months duration.

8.1 Mention five (5) possible causes for his presentation. (15 marks)

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8.2 List two (2) features in the history or examination, supportive of each of the diagnoses mentioned in 8.1 (30 marks)

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8.3 Name one (1) diagnostic test for the each condition mentioned in 8.1 (20 marks)

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