

Index No:



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
FINAL EXAMINATION FOR MEDICAL DEGREES – MAY 2016
MEDICINE PAPER 1

2ND May 2016

(1.00 – 4.00 pm) 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.**

Index No:

1. A 22-year-old male university student presented with fever associated with arthralgia, myalgia and headache for five days. Examination findings were as follows. Temperature 38.2°C, pulse 92 per minute, blood pressure 110/80 mmHg. Tender hepatomegaly was present.
- Investigations on admission: Hb 12.7 g/dL, PCV 42, WBC 1250/mm³, platelet count 37,000/mm³, serum SGOT 201 IU/L, SGPT 125 IU/L

1.1 What is the most likely diagnosis? (5 marks)

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1.2 List **five** clinical features you would regularly monitor during the management of this patient. (25 marks)

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Next day the patient was found to have a pulse rate of 112/ minute, blood pressure of 80/60 mmHg

1.3 List **two** possible causes for this deterioration? (20 marks)

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1.4 List **two** clinical features/investigations to differentiate the **two** (02) conditions mentioned in 1.3 (20 marks)

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1.5 Outline the management of **one** of the conditions that you listed in 1.3. (30 marks)

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2. A 42-year-old male labourer presented with fever and cough for 3 weeks. He has been treated by his general practitioner with three courses of antibiotics which partially resolved the symptoms. He was a non-smoker with no significant medical problems in the past.

On examination he had a BMI 22kg/m² and a temperature of 38°C. Respiratory examination revealed stony dullness and absent breath sounds at right lung base up to the mid zone.

2.1 List **three** possible conditions which are compatible with the above clinical picture. (30 marks)

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2.2 List five (05) investigations to confirm the diagnosis indicating the expected results in each condition mentioned in 2.1. (25 marks)

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2.3 Discuss the specific management and follow up of one of the conditions you listed in 2.1. (30 marks)

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2.4 Mention **three** (03) possible complications of the condition you listed in 2.1.
(15 marks)

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3. A 54-year-old tourist guide from Hikkaduwa presented with a 3-month history of diarrhoea. He reported having loose watery stools four to five times per day. The stool was free of blood or mucus. The patient has a 30 year history of type 1 diabetes mellitus, managed with insulin and a 3-year history of hypothyroidism on thyroxine. On examination he has evidence of peripheral neuropathy with sensory loss up to knee joints.

3.1 Mention **three** most likely differential diagnoses for this patient's presentation.
(15 marks)

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3.2 Explain briefly the reasons for considering above differential diagnoses.
(15 marks)

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3.3 Mention **two** additional features in the history or examination that you would look for to support each of the diagnoses mentioned in 3.1. (30 marks)

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3.4 List **one** investigation and state the expected findings for each of the diagnoses mentioned in 3.1. (15 marks)

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3.5 Describe in brief the general and specific management of **one** of the conditions mentioned in 3.1. (25 marks)

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4. A 55 year-old-male presented with recurrent retrosternal, tightening chest pain while walking and climbing uphill which is relieved with rest. Clinical examination revealed an averagely built male with moderate pallor. He had slow rising radial pulse of 82 beats per min, blood pressure of 110 / 70 mmHg and a Grade 3 systolic murmur best heard at the base of the heart, radiating to neck.

4.1 List **three** different clinical conditions that would contribute to chest pain in this patient? (30 marks)

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4.2 What **two** additional symptoms are likely to be present in view of the cardiac murmur? (10 marks)

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4.3 List **five** investigations you would request and explain how each of them are useful in the diagnosis or management of the underlying cause of chest pain. (40 marks)

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4.4 Name **one** group of medications that should be cautiously used in this patient.
Give reasons for your answer. (20 marks)

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5. A 44-year-old man was treated by a General Practitioner with iron supplements for microcytic hypochromic anaemia with a haemoglobin of 6.1 g/dL.

Six months later the haemoglobin was 6.2g/dL

5.1 Comment on the response to iron therapy. (10 marks)

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5.2 List **four** possible causes for the results seen after treatment. (20 marks)

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Index No:

5.3 Discuss briefly how you would confirm each of the causes mentioned in 5.2.

(50 marks)

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5.4 Discuss **four** important advices that you would give before starting oral iron therapy (20 marks)

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6. A 55-year-old female presented with difficulty in walking and tremors of fingers for one year.

6.1 List **three** other physical signs that would support the diagnosis of idiopathic Parkinson disease. (15 marks)

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6.2 List **three** differential diagnoses other than Parkinson disease for this clinical presentation. (25 marks)

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6.3 Discuss the clinical features that would support each of the differential diagnosis you mentioned. (30 marks)

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6.4 List **three** drugs that are used to treat idiopathic Parkinson disease and indicate their mode of action. (30 marks)

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7. A 28-year-old male patient is referred to the clinic after being detected to have two blood pressure readings of 180/100 mmHg taken one week apart.

7.1 List **three** likely endocrine causes for his elevated blood pressure. (30 marks)

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7.2 List **two** symptoms to support each of the three above conditions listed in 7.1. (20 marks)

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7.3 List **two** investigations to support each of the above conditions listed in 7.1, briefly describing the expected results. (20 marks)

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7.4 Briefly outline **two** important steps in the management of each of the conditions listed in 7.1. (30 marks)

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8. A 42-year-old female is admitted to hospital with leg oedema and loss of appetite. The investigations revealed serum creatinine of 3.0 mg/dL.

8.1 List the **two** most likely clinical conditions compatible with the above illness. (20 marks)

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8.2 List **six** clinical features that would help you to differentiate between the two conditions listed in 8.1. (30 marks)

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8.3 List **six** investigations you would request, explaining the rationale for their selection and the expected results. (30 marks)

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8.4 The patient becomes acutely short of breath 48 hours after admission. List **two** likely reasons for the acute breathlessness. (20 marks)

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