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**FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA  
FINAL EXAMINATION FOR MEDICAL DEGREES – May 2015  
MEDICINE PAPER 1**

**11<sup>th</sup> May 2015**

**(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.**

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- 1 A 43 year-old man was found to be unconscious in a park and was brought to the hospital by police. The relatives when contacted revealed that he has been drinking alcohol on daily basis for the previous 20 years to relieve his tremulousness and sleep disturbances. On examination he was drowsy, afebrile, anicteric and had external injuries with scars of varying stages of healing as well as bite marks on the lateral aspect of the tongue. His blood pressure, pulse rate, respiration and pulse oximetry were normal on admission.

- 1.1 List four likely causes contributing for his unconsciousness ( 20 marks)

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- 1.2 List one investigation you would perform to confirm each of the diagnoses with expected results in each situation mentioned in 1.1 ( 30 marks)

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**1.3 Briefly mention your immediate actions if the results are abnormal in each of the investigation mentioned in 1.2 ( 30 marks)**

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**1.4 Discuss briefly the further management of this patient on discharge (20 marks)**

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- 2 A 40-year-old, recently married male presented with loss of appetite, nausea and abdominal pain of two weeks and passing dark urine for one week duration. One month back his general practitioner started him on atorvastatin 20 mg when he was found to have dyslipidemia. He is a social drinker and recent ultrasound scan revealed only moderate fatty changes in the liver.

Physical examination revealed a well-built male with moderate icterus and tender hepatomegaly. Other systems were unremarkable.

**2.1 What is the clinical diagnosis? (10 marks)**

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**2.2 List three underlying causes for the condition you mentioned in 2.1 in this patient.(30 marks)**

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**2.3 List four investigations you would request in this patient on admission and mention their value in differentiating the causes you mentioned in 2.2 (40 marks)**

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**2.4 List three specific advices you would give to this patient on discharge  
(20 marks.)**

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3. A 60-year-old male presented with shortness of breath for 2 months. Examination revealed bilateral pedal oedema, pulse 100/ bpm irregular, BP 130/90 and elevated JVP. The cardiac apex was felt at the 6th intercostal space. The heart sounds were normal. Few crepitations were present at both lung bases. The rest of the physical examination was normal.

3.1 What is the complete diagnosis? (10 marks)

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3.2 List five possible causes for this patient's illness. (25 marks)

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**3.3 List three investigations to confirm the diagnosis mentioned in 3.1 and indicate how they could be used to differentiate each cause mentioned in 3.2 (40 marks)**

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**3.4 List five different classes of drugs indicated in the management of this patient. (25 marks)**

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4. A 25 year old female was admitted with pain over right chest and breathlessness for five days. She was treated by a general practitioner three days before for fever and cough. Examination revealed dullness in the right lung base with bronchial breathing.

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

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4.2 List five clinical parameters needs to be assessed by the general practitioner to decide on hospital admission. (20 marks)

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4.3 List six investigations that are indicated for the diagnosis and management of this patient. (30 marks)

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**4.4 What pharmacological treatment is appropriate as the initial therapy for this patient? (10 marks)**

Three days later the patient had worsening breathlessness. Examination revealed dullness and totally absent breath sounds on the right side.

**4.5 What complication would you suspect now? (10 marks)**

**4.6 Briefly discuss the management of the complication you mentioned in 4.5 (20 marks)**

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5. A 54-year-old hotelier admitted to a local hospital with symptoms of recent weight loss and increased passage of urine for 2 weeks duration. He had no fever or any evidence of infection on admission. He has been consuming around  $\frac{1}{4}$  bottles of alcohol for more than 10 years; but stopped around 4 weeks ago due to epigastric pain. Examination revealed otherwise healthy looking man with BMI of  $24\text{kgm}^{-2}$ . Baseline investigations are given below.

Random blood sugar on admission- $502\text{mg/dL}$

Urine full report- Sugar- brick red

Pus cells- 2-3/HPF RBS-1-2/HPF

Protein- Nil

Ketone bodies negative

Blood Urea- $22\text{mg/dL}$

Sodium- $130\text{ mmol/L}$

Potassium- $4.2\text{ mmol/L}$

SGOT- $45\text{ IU/L}$ , SGPT- $34\text{ IU/L}$

- 5.1 What is the most likely biochemical abnormality that is responsible for the current symptoms? (10 marks)

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- 5.2 List three possible aetiology for the condition mentioned in 5.1 in order of the priority (20 marks)

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**5.3 List two clinical features or investigation findings that would support each of the condition mentioned in 5.2 (30 marks)**

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**5.4 Enumerate the steps of in-ward and out- patient management of one of the condition mentioned in 5.2 (40 marks)**

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6. A 45-year-old, previously healthy female presented to local hospital with mild shortness of breath with picca for three weeks duration. Apart from pallor rest of the examination was unremarkable. Initial investigations revealed hemoglobin of 7.2 mg/dL with blood picture showing hypochromic and microcytic anaemia.

6.1 What is the most likely clinical diagnosis? (10 marks)

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6.2 List two further investigations that you would perform to confirm the diagnosis mentioned in 6.1 (10 marks)

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6.3 List four features in the history that would be useful to find out the underlying aetiology of the diagnosis mentioned in 6.1 (20 marks)

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6.4 List three further investigations you would consider to find out the underlying aetiology of her illness (15 marks)

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**6.5 Discuss in brief the steps in the management of this patient (30 marks)**

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Despite been on treatment her hemoglobin was 7.8 mg/dL at three months later.

**6.6 Enumerate three possible causes for treatment failure? (15 marks)**

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7. A 78-year-old male is admitted complaining of back pain and bilateral ankle oedema for two weeks. He has been previously well except for longstanding bilateral knee joint pain and frequent urinary infections. His last prescription states that he is on diclofenac sodium 50 mg bd, omeprazole 20 mg bd and tamsulosin 0.4 mg OD. The ESR is 113 mm/Hr and the Serum creatinine is 345 mmol/L

- 7.1 List three possible underlying causes for his renal impairment stating reasons for your answer (30 marks)

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**7.2 Briefly mention pathophysiology of renal impairment in each of the causes mentioned in 7.1 (15 marks)**

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**7.3 List two additional clinical features you would look for in support of each of the underlying causes mentioned in 7.1 (15 marks)**

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**7.4 List one confirmatory investigation for each of the conditions mentioned in 7.1  
(15 marks)**

7.5 List five steps in the management of the renal impairment in one of the conditions that you mentioned in 7.1 explaining the rationale behind each step (25 marks)

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8. A 35-year-old male is admitted after being bitten by an unidentified snake. Examination reveals a bite mark in the leg, bilateral partial ptosis and external ophthalmoplegia.

8.1 List **three** possible snakes which could give rise to the above clinical presentation. (15 marks)

8.2 List two clinical features that would support to differentiate the envenomation from snakes mentioned in 8.1 with expected findings(30 marks)

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**8.3 Describe briefly six steps in management of this patient (30 marks )**

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Ten minutes after commencing treatment patient developed severe itching, urticarial and rigors. Examination revealed; pulse rate 110 per minute, blood pressure 75/50 mmHg and rhonchi in both lungs

**8.4 What is the most likely explanation for his immediate deterioration ( 10 marks)**

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