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UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE
MEDICAL LABORATORY SCIENCE DEGREE PROGRAMME

Year End Examination - Year 2 - 7th Batch

Epidemiology - MLS 2102 (Theory II)

Date: 15th March 2017

Time: 3.00 p.m. - 4.00 p.m. (1 hour)

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1. 1.1 What is an 'outbreak' of a disease? (10 marks)
- 1.2 Briefly describe two special measures of disease frequency that can be used in describing an outbreak of an infectious disease. (20 marks)
- 1.3 Outline the steps involved in investigating an outbreak. (70 marks)

2. 2.1 Define the terms 'Attributable Risk' and 'Population Attributable Risk'. (30 marks)
- 2.2 In a study conducted to evaluate association between exposure to household air pollution (HAP) and development of bronchial asthma, 300 participants were recruited. Among them 125 were exposed to HAP. After a period of one year, 75 of the exposed subjects and 80 of the unexposed subjects developed asthma. (70 marks)
 - 2.2.1 Calculate the Attributable Risk of HAP in causing bronchial asthma.
 - 2.2.2 If prevalence of HAP is 30% in the general population, what is the Population Attributable Risk of HAP for asthma in the population?

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3. A 2 years-old boy was brought to hospital with a history of excessive bleeding after minor cut injury. He is having a past history of frequent bruises. His two maternal uncles are having a history of bleeding tendency.

3.1. What is the most likely diagnosis/ diagnoses? (10 marks)

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3.2. A blood sample for coagulation studies was sent from ETU. (20 marks)

3.2.1. State the sample requirement for coagulation studies.

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3.2.2. List five rejection criteria related to coagulation studies. (30 marks)

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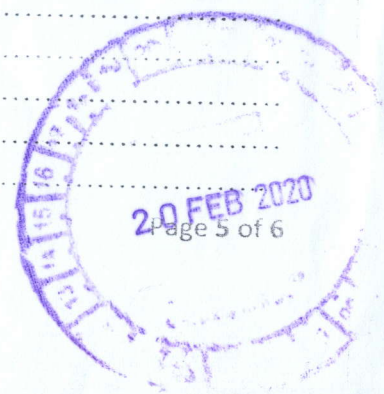
3.2.3. Coagulation studies show the following results. (15 marks)

PT - 12 sec (12- 14 sec)

APTT - 85 sec (26 – 35 sec)

Briefly explain the next step you would do to arrive at a diagnosis.

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2.1. List the anticoagulants commonly used in haematology laboratory. (10 marks)

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2.2. Briefly explain the actions of the anticoagulants stated above. (20 marks)

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2.3. State the effects of the above anticoagulants on full blood count test. (20 marks)

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