FC Path(SA) Clin

THE COLLEGES OF MEDICINE OF SOUTH AFRICA

Incorporated Association not for gain
Reg No 1955/000003/08

Examination for the Fellowship of the College of Pathologists of South Africa - Clinical

24 July 2017

Paper 1 Chemical Pathology (3 hours)

All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)

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1 A hospital has proposed to build a core multi-disciplinary laboratory in a district hospital and they have asked you to prepare a budget plan for consideration. Discuss what elements you would consider in making a plan or proposal for consideration. This needs to take into all the elements of expenditure required to operate a laboratory. [25]

2 Critically discuss how you would investigate a 25-year-old male who presents with possible secondary hypertension. [25]

3 Briefly discuss the role of risk management in quality control in the laboratory. [10]

4 Discuss 3 methods for analysing nucleic acids in the clinical laboratory and comment on their applications in clinical diagnosis. [10]

5 Write short notes on interferences in the enzymatic and non-enzymatic creatinine assays. [10]

6 Discuss the metabolism of methanol and the treatment of suspected methanol poisoning. [10]

7 Briefly discuss the types of labels used in immunoassays and the advantages/disadvantages of each. [10]

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25 July 2017

Paper 2 Haematology (3 hours)

All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)

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1 Discuss how the liver affects coagulation and critically evaluate the strengths and weaknesses of the range of laboratory tests available to assess coagulopathy secondary to liver disease. [25]

2 Describe the flow cytometric features of plasma cells and discuss how immunophenotyping could assist in differentiating reactive from malignant plasma cells. [10]

3 A full term neonate is found to have an Hb of 8g/dL on the first day of life. Describe, in detail, the possible causes of the anaemia and how you would use the haematology laboratory to arrive at a definitive diagnosis. [25]

4 Briefly describe the pathogenesis of transfusion-related acute lung injury (TRALI) following infusion of blood products. [10]

5 Critically evaluate the clinical utility of the PFA 100/200 platelet function analyser. [10]

6 TTP, ITP and DIC can all present as haematological emergencies which require rapid diagnosis and prompt treatment. Describe how you would use the haematology laboratory to differentiate between these three conditions. [10]

7 Describe the possible causes for a 60-year-old businessman who visits his GP for an insurance examination and is found to have an elevated serum ferritin level. What first line tests would you perform to investigate the cause? [10]

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26 July 2017

Paper 3 Medical Microbiology (3 hours)

All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)

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1 Discuss the aetiology, classification and risk factors pertinent to neonatal sepsis. In your answer, additionally indicate the role of the different pathology disciplines in the diagnosis and management of neonatal sepsis. [20]

2 Describe your approach to the investigation and management of a suspected food-borne outbreak. [20]

3 a) What are the causative agents and clinical features of the enteric fever syndrome? (10)
b) List the criteria that you need to consider prior to the introduction of a new technology in the microbiology laboratory. (10)
c) Explain, using suitable examples, what is meant by the following terms (7.5)
i) Root cause analysis.
ii) Epizootic.
iii) Colonization resistance.
d) Compare and contrast the similarities and differences between SARS and MERS-CoV infections. (5)
e) Write short notes on the current recommendations for taking pre-exposure prophylaxis (PrEP) to prevent HIV infection. (7.5)
[40]

4 a) Discuss the advantages and disadvantages of the syndromic approach to the management of sexually-transmitted infections. (13)
b) Discuss how you would:
i) Prevent and
ii) treat pertussis infection. (7)
[20]