



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

26 February 2018



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)

- 1 Discuss the use of biochemical markers in the diagnosis of sepsis. [25]
- 2 Describe your approach to setting up point of care testing for clinical chemistry in regional laboratories. [25]
- 3 For 10 marks each write short notes on
 - a) Biochemical testing for pulmonary embolism. (10)
 - b) The use of dried blood spots in the clinical chemistry laboratory. (10)
 - c) Diagnosis of sub-arachnoid haemorrhage. (10)
 - d) Diagnostic utility of gamma GT. (10)
 - e) Methods for the measurement of HbA1c. (10)[50]



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

27 February 2018



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)

- 1 You are called for advice by a general practitioner who is concerned about his patient's platelet count of $1100 \times 10^9/l$. Discuss in detail your stepwise approach to this scenario. (25)
- 2 Discuss the haematological changes which occur in pregnancy. (25)
- 3 Discuss your advice to the medical officer who has discovered that a patient has incorrectly been administered a unit of red cells prepared for another patient. (10)
- 4 Write short notes on the anaemia of chronic disease. (10)
- 5 Discuss the laboratory diagnosis of Burkitt leukaemia. (10)
- 6 Write short notes on the diagnosis and management of Type I von Willebrands Disease. (10)
- 7 Briefly discuss the diagnostic approach to sickle cell disease. (10)



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

28 February 2018



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)

- 1 Describe and discuss the approach to preventing transmission of tuberculosis in health care facilities, with special reference to challenges and solutions in resource limited, high burden settings such as South Africa. [20]
- 2 Describe the currently available methods for rapid identification and susceptibility testing of bacterial pathogens (excluding mycobacteria), and discuss the challenges and benefits of implementing these methods. [20]
- 3 You have been asked by your regional hospital to provide guidelines to clinicians on appropriate laboratory testing for adults with acute community acquired pneumonia. Write short notes highlighting the key issues that need to be covered in these guidelines. Your answer should focus on tests related to infectious agents. [10]
- 4 Write short notes on the following organisms, focusing on the key clinical associations and management
 - a) *Listeria monocytogenes*. (5)
 - b) *Candida auris*. (5)[10]
- 5 Outline the common mechanism/s of acquired resistance to each of the following antibiotics
 - a) Ciprofloxacin. (2.5)
 - b) Imipenem. (2.5)
 - c) Vancomycin. (2.5)[7.5]
- 6 Write short notes on the epidemiology, pathogenesis and management of *Clostridium difficile* infection. [10]
- 7 Describe, using appropriate examples, the three pharmacokinetic-pharmacodynamic (PK-PD) indices of antibiotic efficacy, and explain how these indices can be used to optimize antibiotic dosing regimens. You may use diagrams / graphs to illustrate your answer. [10]
- 8 Explain what is meant by the term occult hepatitis B, and why it is important to be able to make a diagnosis of occult hepatitis B. [2.5]

- 9 Write short notes on the laboratory testing of hepatitis C infection. [5]
- 10 Outline the antenatal testing that could be offered in order to confirm or exclude congenital infection with rubella virus. [5]