



THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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

Part I Examination for the Fellowship of the College of Pathologists of South Africa – Haematology



31 January 2019

Paper 1

(3 hours)

Please answer questions 1 to 3 in one book

- 1 Discuss the process of apoptosis and describe the role it plays in the normal development and maintenance of the haematopoietic system. [25]
- 2 Discuss the structure and function of dendritic cells. [10]
- 3 Compare and contrast the principles of the processes used in a real-time quantitative polymerase chain reaction with that of a qualitative polymerase chain reaction. [10]

Please answer questions 4 and 5 in one book

- 4 Discuss the role of programmed cell death 1 (PD-1) and other checkpoint inhibitors in normal T-cell functioning. [25]
- 5 Write notes on the physiological role of nuclear factor kappa-light-chain-enhancer of activated B cells (NF- κ B). [10]

Please answer questions 6 and 7 in one book

- 6 Write short notes on the pathogenesis of haemolytic disease of the foetus and newborn. [10]
- 7 Write short notes on the antigens and antibodies of the ABO blood group system. [10]



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1 February 2019

Paper 2

(3 hours)

Please answer questions 1 to 3 in one book

- 1 Discuss the production of platelets and the regulation of this production. [25]
- 2 Write short notes on the role of complement proteins in haemostasis. [10]
- 3 Write short notes on cyclin D1. [10]

Please answer question 4 in one book

- 4 “The red blood cell is ideally structured to execute its function.” Discuss the facts that support or refute this statement. [25]

Please answer questions 5 to 7 in one book

- 5 Write short notes on receptor tyrosine kinases. [10]
- 6 Write short notes on the microenvironmental niches of normal haematopoietic cells in the bone marrow. [10]
- 7 Write short notes on the structure and function of the eosinophil. [10]