



THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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



27 June 2019

1 Paper only

(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 a) Discuss the microscopic features of diabetic nephropathy. (8)
b) Define (1) and discuss the pathogenesis (1) and morphology (3) of
i) Giant cell arteritis. (5)
ii) Granulomatosis with polyangiitis (Wegener granulomatosis). (5)
c) Define and discuss with examples, pathologic calcification under the following headings:
i) Dystrophic calcification (give 2 examples). (2)
ii) Metastatic calcification (give 4 examples). (5)
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- 2 a) With regard to renal calculi/stones:
i) List the four main types. (4x½= 2)
ii) Write notes on factors that predispose to the formation of renal stones in the absence of hypercalciuria. (6)
b) List four susceptibility genes in familial breast cancer. (4x½= 2)
c) Write notes on amyloidosis under the following subheadings
i) Light microscopic features (1), including special stains for amyloid (1). (2)
ii) Electron microscopic features. (1)
d) Define type I hypersensitivity reaction. (2)
e) Write notes on Hashimoto's thyroiditis using the following headings:
i) The main immunologic mechanisms that contribute to thyroid cell death. (5)
ii) Macroscopic features. (1)
iii) Characteristic microscopic features. (2)
iv) List four (4) complications. (4x½ = 2)
[25]
- 3 a) Describe four (4) factors that influence the development of an infarct. (8)
b) Discuss Marfan syndrome under the following headings
i) Epidemiology and modes of inheritance. (1)
ii) An overview of the pathogenesis. (2)
iii) Macroscopic cardiovascular pathology (2) and musculoskeletal pathology (2). (4)
c) Write notes on Warthin tumour under the following headings
i) Macroscopic pathology. (4x½=2)
ii) Light microscopic pathology. (6x½=3)

- d) Mention five (5) pathogenetic mechanisms of a lung abscess, and give one example for each. (5)
- 4 a) Mention the protean pathologic manifestations of congenital syphilis. [25] (5)
- b) Regarding cerebral oedema:
- i) Briefly discuss the two main pathways of oedema formation in the brain. (4)
- ii) Mention four different types of macroscopic features that can be observed at autopsy. (2)
- c) Discuss the pathogenesis (2) and morphology (4) of the skeletal changes in Paget's disease of bone. (6)
- d) Discuss the structure and function of endocrine cells in the gastric mucosa. (3)
- e) Make an annotated diagram to demonstrate the ultrastructural features of the basement membrane of the skin. (5)
- [25]