



THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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

Part 2 Examination for the Fellowship of the
College of Pathologists of South Africa – Anatomical Pathology

1 March 2018



Paper 1

(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) List the organs involved in Von Hippel-Lindau syndrome with the lesions found at autopsy. (8)
- b) List the organs affected in systemic sclerosis with the corresponding macroscopic and microscopic pathological findings at autopsy. (12)
- c) Describe the gross, light microscopic and ultrastructural morphology of HIV-1 encephalomyelitis. (5)
[25]
- 2 a) Regarding the diagnosis of nodular lymphocyte predominant Hodgkin disease, discuss
- i) The use of immunohistochemistry and its correlation with morphology and / or cell types. (9)
- ii) Potential pitfalls in the interpretation of the immunohistochemistry findings. (3)
- b) With reference to the molecular pathology of breast carcinoma
- i) List 4 histologic subtypes of low-grade breast carcinoma with triple negative molecular subtype. (2)
- ii) Define equivocal HER2 FISH results and mention current recommendations pertaining to additional testing and patient management. (3)
- c) Discuss the relevant diagnostic electron microscopic features in each of the following:
- i) Spindle squamous cell carcinoma. (2)
- ii) Alveolar soft part sarcoma. (2)
- iii) Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). (2)
- iv) Junctional epidermolysis bullosa. (2)
[25]
- 3 a) With reference to immunohistochemistry, briefly discuss
- i) Different immunohistochemical procedures and techniques. (6)
- ii) Pitfalls in the interpretation, giving salient examples. (9)

- b) Tabulate the salient histological features for distinguishing benign pancreas tissue from low-grade pancreatic adenocarcinoma in cryostat/frozen sections stained with routine hematoxylin and eosin stain. (10)
[25]
- 4 a) Write short notes on *Listeria monocytogenes* under the following headings
- i) Type of bacteria and how infection is acquired. (2)
 - ii) Pathology seen in adult population. (3)
 - iii) Possible pregnancy-related complications and pathological findings that can be seen in the placenta and fetus respectively. (5)
- b) Write short notes on the mechanism of action of P57^{kip2} and the use of immunostains in the diagnosis of molar pregnancy. (2)
- c) Write short notes on the molecular alterations found in embryonal and alveolar rhabdomyosarcoma respectively. (5)
- d) Write critical notes on the use of UroVysionTM (or equivalent molecular tests, FDA approved) in urine cytology. (4)
- e) Write short notes on the microscopic pathology, electron microscopy and immunofluorescence of C1q nephropathy and mention the most important condition in the differential diagnosis. (4)
[25]



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2 March 2018



Paper 2

(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) Describe the microscopic morphology of serrated colonic lesions. (13)
- b) Define different histologic categories of neuroblastic tumours according to the classification of the International Neuroblastoma Pathology Committee of 1999. (12)
[25]
- 2 a) Write notes on NUT midline carcinoma under the following headings
- i) Clinical features. (2)
 - ii) Diagnostic criteria with reference to morphology and immunohistochemistry. (4)
 - iii) Molecular genetics. (3)
- b) Discuss the macro- and microscopic pathology of mycetoma. (8)
- c) Discuss necrotizing sialadenitis under the following headings
- i) Clinical features. (2)
 - ii) Pathogenesis. (1)
 - iii) Histopathological features and differential diagnosis. (4)
 - iv) Ancillary tests that may be helpful to confirm the diagnosis. (1)
[25]
- 3 a) Write notes on aggressive osteoblastoma under the following subheadings
- i) Microscopic features that assist in distinguishing it from ordinary osteoblastoma. (2)
 - ii) Radiographic features that assist in distinguishing it from ordinary osteoblastoma. (1)
- b) Write notes on Nora's lesion (bizarre parosteal osteochondromatous proliferation) under the following subheadings
- i) Epidemiology. (2)
 - ii) Microscopy. (2)
 - iii) List six lesions that can microscopically mimic this lesion. (3)
- c) Discuss the microscopic features that have a bearing on prognosis, which you will include in the surgical pathology report of an exenteration specimen for a retinoblastoma. (10)

- d) Write notes on the histomorphological (3.5) and immunohistochemical (1.5) features used to distinguish benign small lymphocytic aggregates from lymphoma in a trephine bone marrow biopsy. (5)
[25]
- 4 a) Write short notes on renal artery stenosis under the following headings
- i) Epidemiology, etiology and clinical presentation/features. (3)
 - ii) Potential pathological (macro- and microscopic) findings found in the above resected or autopsy kidney specimen(s). Include findings that may be specific for a particular cause of the renal arterial stenosis. (9)
- b) Tabulate the differences between spermatocytic seminoma and classic seminoma, with reference to
- i) Clinical features. (2)
 - ii) Microscopic features. (3)
 - iii) Immunohistochemistry. (2)
- c) Write short notes on melanotic neuroectodermal tumour (Retinal Anlage Tumour), including epidemiology (0.5), site(s) (1), macroscopic features (1), microscopic features (1.5), immunohistochemistry (1) and prognosis (1). (6)
[25]