



THE COLLEGES OF MEDICINE OF SOUTH AFRICA

Incorporated Association not for gain
Reg No 1955/00003/08

Part I Examination for the Fellowship of the College of Dentistry of South Africa - Prosthodontics

28 June 2018

Paper 2

Physiology

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)

SECTION B

- 1
 - a) Describe the structure of bone and physiology of bone growth. (25)
 - b) Why do doctors recommend that people who are allergic to bee stings (and thus anaphylactic shock) carry a vial of epinephrine in case of a sting? (10)
 - c) List the components of a basic reflex arc. (5)

[40]

- 2 Write descriptive notes on the following
 - a) Functions of plasma proteins. (6)
 - b) The major causes of anaemia. (14)
 - c) The metabolic effects of cortisol. (8)
 - d) Regulation of thyroid hormone secretion. (12)
 - e) Afferent pain fibres. (10)

[50]

- 3
 - a) Discuss the role of platelets in haemostasis. (17)
 - b) Describe the functions of lymphocytes in body protection. (18)

[35]



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Paper 3

Principles of pathology including microbiology

SECTION B

Answer the following questions in a separate book (or books if more than one is required for the answer), and ensure that the question number and answer correspond.

- 1 List and describe the five cardinal signs of acute inflammation. [15]
- 2 Explain the pathophysiological causes of shock. [15]
- 3 Provide examples to explain the T-cell reactions involved in tissue injury and disease. [15]
- 4 With regard to thrombosis, compare and contrast arterial and venous thrombi with reference to the predisposing factors, pathogenesis and ultimate fate. [15]
- 5 Explain the factors which influence the mutagenic, carcinogenic and teratogenic effects of ionising radiation on DNA. [10]



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SECTION C

All questions to be answered in one book.

Write brief explanatory notes for each of the following questions.

- 1 Type I hypersensitivity reactions. [5]
- 2 Components of innate immunity. [5]
- 3 Physiological causes of apoptosis. [5]
- 4 The role of diet in carcinogenesis. [5]