



FCMFOS(SA) Primary

THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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

Primary Examination for the Fellowship of the
College of Maxillofacial and Oral Surgeons of South Africa

25 June 2019

Paper 2

Physiology

All questions 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) A young man has a blood pressure of 130/73 mm Hg. What is his pulse pressure? What is his mean arterial pressure? How did you calculate each of those pressures?
b) Outline the compensatory mechanisms that maintain blood pressure on rising from the supine to the standing position. [15]

- 2 By means of a diagram, illustrate the relationship between the partial pressure of O₂ in blood and the percent saturation of haemoglobin at rest, and the changes produced in this relationship by exercise. [10]

- 3 a) Mrs Smith experiences a sharp pain in her upper right abdomen after eating a high-fat meal. Also, she noted that her faeces are greyish-white instead of brown. What is the most likely cause of her symptoms? Explain why each of these symptoms occurs with this condition.
b) Describe bilirubin metabolism and explain how the newborn may develop jaundice.
c) Explain why removal of either the stomach or the terminal ileum leads to pernicious anaemia. [15]

- 4 Write short descriptive notes on
a) Taste.
b) Functions of vitamin D (calcitriol). [10]



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26 June 2019

Paper 3 Principles of pathology including microbiology (3 hours)

All questions 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) Define the following and give an example
- i) Hyperplasia. (3)
 - ii) Hypertrophy. (3)
 - iii) Atrophy. (3)
 - iv) Metaplasia. (3)
- b) List five causes of cell damage and give an example of each. (10)
- c) Name three diagnostic tests available to assist in diagnosis of a genetic disease. (3)
- [25]
- 2 a) Name and briefly describe the events leading to the transmigration of leucocytes across the vessel wall in acute inflammation. (8)
- b) Describe a granuloma and name three conditions in which they may be found. (6)
- c) Briefly describe the complications of thrombosis. (5)
- d) Describe the morphology and the difference between pale and red infarcts. (6)
- [25]
- 3 Compare benign and malignant tumours using the following

	Benign tumour	Malignant tumour
Boundaries		
Rate of growth		
Relationship to surrounding tissue		
Spread		
Effects		

- a) Name the important sites of atheroma and the effect due to complications. (10)
- b) Name five complications of Diabetes mellitus. (5)
- [25]