



## 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 Dentistry of South Africa - Prosthodontics

28 June 2017

Paper 1

Anatomy

(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 Complete the following tables (see attached tables)
  - a) Muscles. (20)
  - b) Trigeminal nerve parasympathetic ganglia. (28)[48]
- 2 Describe the following as it relates to the tongue
  - a) Nerve innervation. (10)
  - b) Lymphatic drainage. (5)[15]
- 3 Describe, in detail, the submandibular gland. The following points must be covered in the answer
  - a) Anatomic location of cervical and deep parts.
  - b) Anatomic relations to the cervical part of the gland (structures/spaces or other anatomic.
  - c) Anatomic relations to the deep part of the gland (structures/spaces or other anatomic constructs in the immediate vicinity of this part of the gland). [23]
- 4 Write descriptive notes on the paranasal air sinuses. [12]
- 5 Briefly discuss the embryologic development of the viscerocranium. [12]

A

**MUSCLE**

	<b>Masseter</b>	<b>Temporalis</b>	<b>Lateral Pteregoid</b>	<b>Medial Pteregoid</b>	<b>Genioglossus</b>
<b>Origin</b>					
<b>Insertion</b>					
<b>Action</b>					
<b>Innervation</b>					

B Complete the table for all the ganglia associated with the Trigeminal nerve (N. V)

**Parasympathetic ganglia associated with the Trigeminal nerve**

	<b>Ciliary Ganglion</b>	<b>Pteregopalatine Ganglion</b>	<b>Otic Ganglion</b>	<b>Submandibular ganglion</b>
<b>Attachment of ganglion</b>				
<b>PARASYMPATHETIC</b>				
<b>Root</b>				
<b>Distribution</b>				
<b>SYMPATHETIC</b>				
<b>Root</b>				
<b>Distribution</b>				
<b>SOMATIC</b>				
<b>Root</b>				
<b>Distribution</b>				



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29 June 2017

Paper 2

Physiology

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- 2 Knowing that saliva is important in the oral cavity, answer the following questions related to saliva.
- a) Describe its main constituents. (5)
  - b) Give a detailed description of the functions of saliva. (10)
  - c) Explain the control of salivary secretion. (10)
- [25]
- 3 Write short descriptive notes on each of the following
- a) Cholecystokinin (CCK). (5)
  - b) The different categories of hypoxia. (8)
  - c) Cardiac output. (4)
  - d) The types of T-cells. (4)
  - e) Functions of vitamin D. (4)
- [25]
- 4 Discuss the physiology of haemostasis. [25]



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

30 June 2017

Paper 3

Principles of pathology including microbiology

(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 36-year-old male patient is shot in the abdomen during a robbery. He is taken to casualty where emergency personnel recognise that he is in hypovolemic shock
  - a) Explain the term shock with reference to the pathophysiology and clinical course. (10)
  - b) Distinguish between the three major forms of shock by comparing the principal mechanisms involved in each case. (10)[20]
  
- 2 The process of acute inflammation aims to clear infections and allow for wound healing to proceed, however, it has the potential to cause considerable harm
  - a) Explain the above statement with reference to the beneficial and harmful effects of acute inflammation and comment on the chemical mediators which act to bring these effects about. (10)
  - b) Identify and describe the eventual consequences (outcomes) of the acute inflammatory process. (10)[20]
  
- 3 Carcinogenesis involves a stepwise accumulation of genetic alterations and defects which eventually result in the malignant transformation of a cell. Detail the steps involved in the neoplasia to explain the molecular basis of multistep carcinogenesis. [20]
  
- 4 Explain the role of micro-organisms in oncogenesis by providing examples of the viruses, bacteria and parasites which have been implicated in this process. Your answer should include the neoplasms with which each infective agent is associated as well as a brief overview of the pathogenetic mechanisms in each case. [15]
  
- 5 Explain the general causes of abnormal intracytoplasmic accumulations in cellular damage and provide examples in each category. [10]
  
- 6 Write brief explanatory notes for each of the following
  - a) The mechanisms of extracellular signalling. (5)
  - b) The process of wound healing by secondary intention. (5)
  - c) The clinical presentation and diagnosis of systemic lupus erythematosus. (5)[15]