



ROYAL AUSTRALASIAN COLLEGE
OF
DENTAL SURGEONS
INCORPORATED
ABN 97 343 369 579

PRIMARY EXAMINATION IN
MICROBIOLOGY

Wednesday 28th November 2007

Time allowed: **Two hours**

INSTRUCTIONS TO CANDIDATES:

PLEASE WRITE SECTION A & B in SEPARATE BOOKS

The complete examination in Microbiology is in two parts:

This paper is worth 75% of the final mark;

The viva is worth 25% of the final mark.

- Answer only ONE question in Part A.
- Answer only 4 questions in Part B.
- All questions are of equal value (15 marks each). Total 75 marks.

Part A.

Answer Part A in a separate exam booklet. Answer only ONE question in Part A.

1. Explain why patients with AIDS develop characteristic oral lesions. Use at least three examples of oral lesions in AIDS to illustrate your answer. **(15 marks)**
2. Discuss the rationale for antibiotic cover for certain dental procedures. Include in your answer examples of conditions and procedures for which cover is indicated. **(15 marks)**

Part B.

Answer Part B in a separate exam booklet. Answer only 4 questions in Part B.

3. Discuss the evidence that dental caries is a microbial disease, making specific reference to the concept of biofilms. **(15 marks)**
4. Describe how the various types of chemical indicator systems are used to monitor the performance of an autoclave in a dental practice. **(15 marks)**
5. Compare and contrast the following three situations: a chronic endodontic infection, a periapical abscess, and oral hairy leukoplakia, using a table with the following headings
 - Nature of the pathogens
 - Nature of the host immune response
 - Treatment.**(15 marks)**



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Written paper continued

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6. With regard to hepatitis B infection,
- What serological marker is used to indicate immunity?
 - What laboratory test results would indicate that a patient was a hepatitis B carrier?
 - List the factors that influence the likelihood of transmission of hepatitis B from an infected health care worker to a patient.
- (15 marks)**
7. Describe how the resting salivary pH is measured, and how this parameter can influence the oral microflora. What is the relevance of this to dental caries?
- (15 marks)**
8. Explain why additional infection control precautions are required for patients with prion diseases, active tuberculosis, or SARS.
- (15 marks)**
9. Describe the management of a sharps injury from a HIV positive patient sustained by a dentist undertaking periodontal debridement.
- (15 marks).**
10. Explain how a prion differs from other infective agents which can cause disease. What is the relevance of this in terms of host immune responses?
- (15 marks)**

~ END OF PAPER ~