



The Royal College of Pathologists

Pathology: the science behind the cure

**FRCPath Part 2 examination**

**Medical Microbiology – First Written paper**

**Spring 2017**

**Candidates must answer ONE question in Section A and THREE questions from Section B**

Each question is equally weighted and is marked out of 25.

Candidates are advised to spend approximately 45 minutes on each question.

You must NOT remove this question paper from the examination hall, nor copy any question and remove it from the examination hall.

**Time allowed - THREE HOURS**

## **Section A: Essay questions (please answer one question)**

### **Question 1**

As the infection prevention and control doctor, you have been asked by the senior management team at your hospital to investigate two fatal cases of hospital acquired Influenza A infection as a serious clinical incident and to write a formal report for the hospital clinical governance board after the investigation. Describe how you would undertake the investigation and write the report.

Your answer should include:

- a) The process you would use to investigate the incident
- b) Who should be in your investigation team?
- c) How you would gather and map information related to the incident and what sources of information and guidance you would use?
- d) How you would structure your report?
- e) How you would ensure that your recommendations are implemented?

### **Question 2**

The Chair of the Antimicrobial Stewardship Committee in your Trust has asked you to draft a Surgical Antibiotic Prophylaxis Policy for use across the various surgical specialties.

- a) Outline a wound classification system (for example, the National Healthcare Safety Network wound classification system) and explain how this would be reflected in the policy.
- b) Discuss the factors involved in choosing appropriate antibiotics for different surgical procedures.
- c) Outline situations in which you would recommend intra-operative re-dosing of antibiotics.
- d) How will you ensure compliance with the Policy?

**Section B: Short notes questions (please answer three questions)**

1. Write short-notes on the application of three of the following methods used in the detection of carbapenemase-producers
  - a) Combination disc methods
  - b) Genotypic methods
  - c) Chromogenic agar
  - d) Matrix assisted laser desorption ionisation-time of flight (Maldi-ToF)
  
2. Write short-notes on three of the following:
  - a) Aztreonam
  - b) Colistin
  - c) Temocillin
  - d) Fosfomycin
  
3. Write short notes on three of the following:
  - a) Diagnosis of cytomegalovirus (CMV) infection in pregnancy
  - b) Clinical significance of hepatitis B surface antigen mutants in women planning pregnancy
  - c) Management of varicella zoster infection in the third trimester of pregnancy
  - d) Prevention of Parvovirus B19 infection in pregnancy
  
4. Write short notes on three of the following:
  - a) Complications of *Chlamydia trachomatis* infections
  - b) Ocular Syphilis
  - c) *Klebsiella granulomatis*
  - d) *Phthirus pubis*