

UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For The Following Qualification:–

B.Sc. (Intercal)

Pathology I2: Clinical Microbiology

COURSE CODE : **PATHI002**

UNIT VALUE : **0.50**

DATE : **01-JUN-04**

TIME : **10.00**

TIME ALLOWED : **3 Hours**

Royal Free and University College Medical School of UCL, Hampstead Site

Intercalated Degree: BSc in Infection 2003-2004

Pathology I2: Clinical Microbiology Exam Paper

Tuesday 1st June 2004: 10.00 - 13.00

You must answer Question 1 (compulsory) and then 3 further questions.

Please use a separate examination answer book for each question attempted.

1. Write short notes on **three** of the following topics:

- a) Bacterial endotoxins
- b) Infections in the neutropenic patient
- c) Combined antibiotic therapy
- d) Gonococcal virulence factors
- e) Molecular analysis of antibiotic resistance
- f) Mimicry of host antigens to evade immune defences

Answer 3 questions from the following six questions:

2. Outline the main routes by which organisms are transmitted to and between humans giving relevant examples. Discuss how knowledge of routes of transmission can help control infection.
3. Discuss, with reference to bacterial infections, why M-cells are the 'Achilles heel' of the gastrointestinal tract.
4. Discuss how the mode of action of antibiotics exploits differences between bacteria and the host giving relevant examples.
5. Describe, with named examples, the common underlying genetic mechanisms of antigenic variation in blood-borne microbial pathogens and parasites.
6. Discuss, with examples, the regulatory mechanisms involved in responding to external stimuli in Gram negative bacteria.
7. Discuss the importance of TNF in the pathogenesis of severe malaria.

End of Paper