



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2009/2010

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

HML 305: CLINICAL BACTERIOLOGY I

DATE: Thursday, 24th December, 2009

TIME: 11.00 a.m. – 1.00 p.m.

INSTRUCTIONS:

Section A

Answer **ALL** questions: (10 marks each)

1.
 - a) Differentiate between bacterial endotoxins and exotoxins (4 marks)
 - b) Describe three modes by which bacteria are transmitted vertically giving appropriate examples. (6 marks)
2.
 - a) Compare tuberculoid and lepromatous leprosy. (5 marks)
 - b) Outline the factors that influence the Widal test (5 marks)
3.
 - a) Differentiate between 50% infectious dose (ID₅₀) and 50% lethal dose (LD₅₀) (2 marks)
 - b) State the main characteristics that differentiate *Shigellae* from *Salmonellae*. (3 marks)
 - c) Identify the virulence factors produced by *S. aureus* and their role in pathogenesis. (5 marks)

Section B

Answer any **TWO** questions. (20 marks each)

4. Discuss the non specific serologic tests used in the diagnosis of syphilis.
(20 marks)

5.
 - a) Outline and interpret the tuberculin skin (Mantoux) test for tuberculosis
(5 marks)
 - b) Write notes on the types of *Salmonella* infections
(15 marks)

6. Write notes on the clinical presentations resulting from infections with the following bacteria:
 - a) *Bacillus anthracis* (10 marks)
 - b) *Yersinia pestis* (10 marks)