



KENYATTA UNIVERSITY
NAKURU CAMPUS

UNIVERSITY EXAMINATIONS 2013/2014

MAY SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF PUBLIC
HEALTH

HPH 808: INFECTIOUS DISEASE DYNAMICS ✓

DATE: WEDNESDAY 6TH AUGUST, 2014

TIME: 2.00 P.M – 5.00 P.M

INSTRUCTIONS:

- Answer ALL questions in section A and any THREE questions in section B.

SECTION A: (answer all questions)

- (a) Explain the agents related factors affecting the gradient of infections. (9 marks)
(b) Giving one relevant infectious agent, describe how epidemiological triad approach applies in prevention and controlling its spread. (10 marks)
(c) i) Distinguish between Frank and opportunistic infections (4 marks)
ii) Explain factors that predispose one to Nosocomial infections (4 marks)
~~iii) Explain factors that predispose one to Nosocomial infections (4 marks)~~
(d) In epidemiology of biology of H5N1, explain the characteristics, interventions and barriers to controlling its spread, if there is an outbreak of disease. (15 marks)
(e) Describe theories explaining disease causation (10 marks)

SECTION B: (ANSWER ANY THREE QUESTIONS)

- Using relevant examples, describe prevention and control of infectious diseases. (30 marks)
- Discuss emerging and re-emerging infectious diseases under the following headings. (30 marks)
 - Distinguish between emergence and re-emergence of diseases
 - Factors contributing to emergence and re-emergence of diseases
 - Measures and strategies to reduce the threats of emergence and re-emergence of disease.
- (i) Describe the mechanism of host-defense against different classes of microbes. (15 marks)
 - (ii) Explain factors that influence the vaccine immune response (15 marks)
- Describe the life cycle, prevention and control of the following: (30 marks)
 - i) *Cryptosporidium Parvum*
 - ii) *Schistosomiasis* / *Leshmaniasis*