



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF

PUBLIC HEALTH (MONITORING AND EVALUATION)

HPH 717: APPLIED EPIDEMIOLOGY

DATE: Tuesday, 3rd April, 2012

TIME: 9.00 a.m. – 1200 p.m.

INSTRUCTIONS:

Answer **ALL** questions in Section A and any **THREE** in Section B. Use diagrams where appropriate to illustrate the answers.

SECTION A

1. Identify appropriate outbreak control measures for various diseases at a local, national and international level (10 marks)
2. Outline the various sources of that can be used for public health surveillance. (10 marks)
3. Explain the roles of the role of chance, bias, confounding and effect modification in epidemiological studies (10 marks)
4. List the major considerations in starting a surveillance systems (10 marks)
5. Briefly explain the Potential errors in epidemiological studies (10 marks)

SECTION B

QUESTION ONE

Write an essay on the major ethical and logistical issues in designing and conducting epidemiological studies (30 marks)

QUESTION TWO

You are an epidemiologist in charge of Kakuma refugee camp where there is a suspected outbreak of cholera.

- a) What information do you need to decide if this is an epidemic? (5 marks)
- b) What clinical and epidemiologic information might be helpful in determining the etiologic agent(s)? (5 marks)
- c) The Kakuma investigators distributed a questionnaire to all members of the mission. What information would you solicit on this questionnaire? (5 marks)
- d) Design and appraise an analytical study that may be used to investigate the outbreak of cholera (15 marks)

QUESTION THREE

- a) Describe why public health authorities conduct surveillance (15 marks)
- b) Identify the main types of surveillance and their uses (15 marks)

QUESTION FOUR

Write an essay on the Criteria for evaluating evidence on public health interventions (30 marks)

QUESTION FIVE

Describe the hierarchy of epidemiological study designs while highlighting the strengths and weaknesses of each (30 marks)