



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations for 2015/2016 Academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

**FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN POPULATION HEALTH**

PPH 208: COMMUNICABLE DISEASES

DATE: 11/8/2016

TIME: 8:30 – 10:30 AM

INSTRUCTIONS:

Answer Question One and any other Two Questions

QUESTION ONE

- a) Define the following concepts as used in communicable diseases.
- i) Reservoir (1 mark)
 - ii) Pathogenicity (1 mark)
 - iii) Incubation period (1 mark)
 - iv) Carrier (1 mark)
 - v) Epidemic (1 mark)
 - vi) Herd Immunity (1 mark)
- b) Outline two modes of communicable disease transmission. (2 marks)
- c) The Host-Agent Environment model is used in epidemiology to describe disease occurrence. Giving relevant examples discuss the THREE components of this model in relation to communicable diseases. (3 marks)

- d) State the causative agent of the following diseases. (3 marks)
- i. Filariasis
 - ii. Anthrax
 - iii. Herpes Genitalia
- e) Describe two risk factors for transmission of sexually transmitted infections (STIs) (2 marks)
- f) Outline Two laboratory methods used to confirm the diagnosis of soil transmitted helminths infections in children. (2 marks)
- g) Briefly describe the transmission and life cycle of Leishmaniasis parasites. (6 marks)
- h) Describe the clinical manifestation of Pulmonary tuberculosis (2 marks)
- i) Explain how a person with a suspicious animal bite is managed. (2 marks)
- j) Describe two factors that have contributed to the occurrence of emerging infections diseases in the last two decades. (2 marks)

QUESTION TWO

Discuss Schistosomiasis under the following subheadings and how knowledge of the same would be used to better manage the health systems. (20 marks)

- i. Infectious agent
- ii. Mode of transmission
- iii. Environmental and host factors that favour transmission
- iv. Prevention measures.

QUESTION THREE

Using relevant examples describe how various strategies of communicable disease control and prevention can be applied at the community level. (20 marks)

QUESTION FOUR

- a) Define notifiable disease (2 marks)

- b) Cholera outbreaks are common in different parts of Kenya especially in areas of poor socio economic status. You are a Public Health Officer in Kibera slums Nairobi and there is an outbreak of cholera. (18 marks)
- i) Discuss the steps you would take to investigate the outbreak
 - ii) Describe how we can control and prevent such outbreaks.

QUESTION FIVE

- a) Define zoonosis and give two examples of bacterial zoonotic diseases. (4 marks)
- b) Using examples, describe at least four ways zoonotic disease are transmitted. (8 marks)
- c) Describe transmission and life cycle of Taeniasis. (8 marks)