



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017
SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE
HEH 405: ENVIRONMENTAL HEALTH ECONOMICS

DATE: THURSDAY 18TH MAY 2017

TIME: 4.30 P.M. - 6.30 P.M.

INSTRUCTIONS

SECTION A

- a) Explain the relevance of economics to environmental health expert (4 marks)
- b) State the application of production possibility frontier to society's choices (4 marks)
- c) Explain on the concept socially efficient level of pollution. Use illustration to aid your answer. (4 marks)
- d) Siwa any Nyazi rivers flow through kwaheri city and pimpri area. The population of this area has grown at fast pace in the recent years and new industries have developed in the absence of sewage and refuse collection services, untreated domestic sewage and partially untreated industrial waster flow into these rivers. As a result river water quality has deteriorated with respect to biological oxygen and phosphates levels. Environmental health economist was asked to estimate how much population living near rivers affected by pollution would be willing to pay to clean the river. State and explain the most appropriate techniques the expert would use and state the merits and demerits of the above stated technique. (4 marks)
- e) Explain four economic impact of environmental degradation in Kenya. (4 marks)

SECTION B: Answer Question Two and any other Two Questions

- Q.2 Patient X has a chronic condition. If he continues receiving standard treatment he will live for one year and his quality of the life will be 0.4. If he receives the new drug he will live for 1 year 3 months. With quality of life of 0.6.

The cost of new drug is assumed to be \$ 10000, standard treatment cost \$ 3000.

- i) Calculate incremental cost effectiveness analysis (5 marks)
 - ii) Describe the above economic analysis (5 marks)
 - iii) Analyze both advantages and disadvantages of the above analysis (5 marks)
 - iv) Describe on the concept QALY (5 marks)
- Q.3
- i) Describe the economic features of health care in Kenya (5 marks)
 - ii) Analyze the causes of health care market failure in Kenya (10 marks)
- Q.4
- i) Describe the representation of environmental damage and pollution in economics (5 marks)
 - ii) Discuss the economic policies which effectively respond to environmental problems (10 marks)
- Q.5
- i) Describe on the concept economic sustainability as applied in environmental health economics (10 marks)
 - ii) Describe the relationship between economic development and health (5 marks)