

**TECHNICAL UNIVERSITY OF MOMBASA**

Faculty of Applied and Health Sciences

Department of Enviroment & Health Sciences

**UNIVERSITY EXAMINATION FOR:**

Bachelor of science in community health (BSCH16J)

APH 4206:  **PRINCIPLES OF** **EPIDEMIOLOGY**

END OF SEMESTER EXAMINATION

**SERIES:**APRIL2016

**TIME:**2HOURS

**DATE:**Pick DateApr2016

**Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of Choose Nochoose Sect/Quest. Attemptquestion ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

**Question ONE**

1. Out of the 30,000 people living on Migingo Island 25,000 had suffered from typhoid in the last 10 years (2001-2011). During the same period 9, 000 deaths were reported as a result of typhoid. In 2011 alone, 10,000 people suffered from typhoid out of which 3,000 succumbed (died of) to typhoid. Calculate
2. The incidence of typhoid on the island in 2011. [3 marks]
3. The mortality rate of typhoid. [3 marks]
4. The prevalence rate of typhoid. [3 marks]
5. The case fatality rate of typhoid in 2011. [3 marks]
6. Outline any three types of outbreaks. [3 marks]
7. Describe 3 agent characteristics that determine disease outbreaks. [3 marks]
8. Describe any 4 vectors of public interest in the food industry. [4 marks]
9. Briefly describe 4 types of causal relationships. [4 marks]
10. Explain the contribution of the following people to public health. [4 marks]
11. William Farr
12. John Snow
13. James Lind
14. Louis Pasteur

**Question TWO**

Discuss any 10 host characteristics that may be associated with increased risk of human diseases. [20 marks]

**Question THREE**

During the last beach party organized by public health students, 22 students suffered from gastroenteritis. The total population of public health students is 350 but only 120 attended the party. You have been asked to assess this outbreak.

1. Calculate the attack rate of gastroenteritis. [4 marks]
2. Describe any 8 factors that influence incidence rates. [16 marks]

**Question FOUR**

Discuss the used guidelines for judging whether this association is causal. [20 marks]

**Question FIVE**

a) Citing relevant examples discuss the objectives of epidemiology. [12 marks]

b) Discuss briefly the descriptive epidemiology of yellow fever. [8marks]