



**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS**

**MAIN EXAM**

**2023/2024 ACADEMIC YEAR**

**YEAR ONE/SEMESTER ONE EXAMINATION**

**MASTER OF PUBLIC HEALTH**

**COURSE CODE: PHC 811**

**COURSE TITLE: ADVANCED EPIDEMIOLOGY**

**DATE: 14<sup>TH</sup> DECEMBER, 2023**

**TIME: 8.00AM-11.00AM**

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**INSTRUCTIONS TO CANDIDATES:**

**There are five Questions in this paper. Answer question 1 and any other three questions.**

**Time 3: Hours**

**Each question has 25 Marks.**

1. Trace the evolution of epidemiology with respect to the contributions of the following:
  - a) Early causal explanations of epidemics**(5 Marks)**
  - b) Hippocrates **(5 Marks)**
  - c) John Graunt, **(5 Marks)**
  - d) John Snow **(5 Marks)**
  - e) Framingham Heart Study **(5 Marks)**
  
2. Discuss the following:
  - a) Analytical epidemiology**(5 Marks)**
  - b) Rate
  - c) Descriptive Epidemiology**(5 Marks)**
  - d) Determinants of disease**(5 Marks)**
  - e) Prevalence **(5 Marks)**
  
3. Discuss the design, strengths and limitations of cohort design in epidemiologic studies**(25 Marks)**
  
4. Discuss 5 important data sources that can be used in epidemiologic studies**(25 Marks)**
  
5. Discuss rate is an important measure in measures of morbidity and mortality in epidemiology**(25 Marks)**