



GRETSA UNIVERSITY - THIKA

UNIVERSITY EXAMINATIONS January - April 2025 SEMESTER

DIPLOMA IN HEALTH RECORDS AND IT

COURSE CODE: DIHR 043

COURSE TITLE: MEDICAL STATISTICS II

DATE:

TIME:

INSTRUCTIONS TO CANDIDATES

1. SECTION A IS **COMPULSORY**.
2. SECTION B: ANSWER ANY OTHER **THREE** QUESTIONS.
3. **DO NOT** WRITE ANYTHING ON THIS QUESTION PAPER AS IT WILL BE AN EXAM IRREGULARITY.
4. ALL ROUGH WORK SHOULD BE AT THE BACK OF YOUR ANSWER BOOKLET AND CROSSED OUT.

CAUTION: *All exam rooms are under CCTV surveillance during the examination period.*

SECTION A: COMPULSORY

PART I: MULTIPLE CHOICES QUESTIONS

[ONE MARK EACH]

1. One of the following does not describe information processing?
 - A. Collection
 - B. Analysis
 - C. Systematic Arrangement
 - D. Presentation
2. Which one of the following is not a characteristic of high quality data?
 - A. Timely
 - B. Accurate
 - C. Up to date
 - D. Aggregate
3. Which of the following does not guide in Health Data Collection?
 - A. Objective of the investigation
 - B. Respondents' tribal affiliation
 - C. Statistical unit to be used
 - D. Type of the investigation
4. Who among the following is not a hospital administrative statistics user?
 - A. Doctors
 - B. Hospital administrators.
 - C. Ministry of health officials
 - D. Hospital support staff.
5. A situation where by each and every individual within a population has an equal chance of being included in the sample, is known as:
 - A. Restricted sampling
 - B. Purposive sampling
 - C. Simple random sampling
 - D. None of the above.

PART II: SHORT ANSWER QUESTIONS: ANSWER ALL QUESTIONS IN THIS SECTION

1. Explain the meaning of the following terms and phrases as used in health administrative statistics. [5 marks]
 - a. Admission

- b. Bed state
 - c. Percentage occupancy
 - d. Staffed beds
 - e. Amenity bed
2. Complete the following abbreviations as used in health administrative statistics [5 marks]
- a. T.O.B
 - b. E.B.D
 - c. O.B.D
 - d. A.B.D
 - e. A.L.O.S
3. State the qualities of a good and reliable data for use in health institutions [5 marks]
4. Distinguish transfer in and transfer out as used in health facility set up [2marks]
5. Highlight any 3 events captured in vital statistics [3 marks]
6. Highlight any five advantages of using computers in managing health statistical data [5marks]

SECTION B: ANSWER ANY TWO QUESTIONS [40 MARKS]

Question one

A hospital had 100 allocated beds during the year 2023. During this period the hospital had 25000 inpatient days. The hospital discharged 800 patients during the period of time. Use the above information to calculate:

- a. Percentage occupancy Dairy average occupancy [3 marks]
- b. Average length of stay [3 marks]
- c. Dairy average occupancy [3 marks]
- d. Turnover per bed. [3 marks]
- e. The number of beds required in order to accommodate all the patients on bed [3 marks]
- f. If the cost of one bed was KSH 2800, calculate the amount of money that would be required to buy the extra bed needed to accommodate all the patients on bed. [3 marks]
- g. The hospital spent Ksh 1300 on each patient's drugs. Calculate the amount of money that was used on drugs in the stated period of time. [2 marks]

Question two

In the year 2017, a hospital had 900 beds permanently allocated for in-patient use. During the period the hospital percentage occupancy was 110% and that there were 1300 patients

discharged home alive, and 100 deaths occurred. Use the information to calculate the following hospital statistics and explain the meaning of each one of your answers

- a. Inpatient days [4 marks]
- b. Average length of stay [4 marks]
- c. Through put per bed. [4 marks]
- d. Excessive/vacant bed days [4 marks]
- e. Turn over interval [4 marks]

Question three

- a. During the month of September, the Wound Clinic was held 12 times and there were 287 visits. Calculate the number of visits per clinic session. [2 marks]
- b. During the month of August, a hospital performed 750 operations, and 750 anesthetics were administered. There was 1 death due to anesthesia. Calculate anesthesia death rate. [2 marks]
- c. Discuss any five points which should be included in policies and procedures aimed at ensuring high quality reports are produced in a health facility. [10 marks]
- d. Describe any three qualities of a good and reliable statistical data for use in health institution [6 marks]

Question four

In 2001, a hospital unit recorded 11676 in patient days; 130 discharges and deaths and had 30 allocated beds. Calculate to 1 decimal place

- a) Available bed days [4 marks]
- b) Excess / vacant bed days [4 marks]
- c) Percentage occupancy [4 marks]
- d) Average length of stay [4 marks]
- e) Supposing this unit represents 25% of the entire hospital's beds, patient and their days; Calculate the entire hospital % Occupancy [4 marks]