# GRETSA UNIVERSITY - THIKA

## UNIVERSITY EXAMINATIONS
## SEPTEMBER - DECEMBER 2021 SEMESTER

## DIPLOMA IN HEALTH RECORDS AND INFORMATION TECHNOLOGY

**COURSE CODE: DIHR 043**

**COURSE TITLE: MEDICAL STATISTICS II**

**DATE: 19 NOVEMBER 2021**                    **TIME: 8:00 AM – 11:00 AM**

**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.

**SECTION A: COMPULSORY**

**MULTIPLE CHOICES QUESTIONS**          **[ONE MARK EACH]**

1.  Average daily census is also called
    A.  Bed state
    B.  Average daily bed occupancy
    C.  Bed turn over
    D.  In patient census

2.  The formal process whereby an in-patient leaves the hospital at the end of an episode of care is collectively called
    A.  Dismissal
    B.  Separation
    C.  Sick leave
    D.  Discharge.

3.  The count of in patients at a given time is referred to as
    A.  Bed count day
    B.  Census
    C.  Daily census
    D.  Available patients

4.  The number of beds occupied and unoccupied set up in an inpatient area of the hospital is called
    A.  Bed compliment
    B.  Amenity bed
    C.  Occupied bed
    D.  Ward bed

5.  A man was injured in an automobile accident and brought to the emergency room of the hospital. He died in the emergency room before treatment could be started. In compiling hospitals statistics, this patient would be counted as.
    A.  Dead on arrival
    B.  Outpatient death
    C.  Inpatient death
    D.  Institutional death.

**SHORT ANSWER QUESTIONS: ANSWER ALL QUESTIONS IN THIS SECTION**

1.  Define the following terms as used in hospital administrative statistics.　　**[5 Marks]**
    a)  Health administrative statistics
    b)  Bed state
    c)  Turn-over interval
    d)  Amenity bed.

2.  Explain the difference between intrahospital and extra hospital transfer as used in health facilities.　　**[4 Marks]**

3.  A hospital unit with 15 available beds had 450 inpatient service days in the month of June. Calculate the daily occupancy of the unit.　　**[5 Marks]**

4.  Quality data is very important especially in the medical field. Highlight any five consequences of collecting and maintaining poor quality data in a hospital　　**[5 Marks]**

5.  Highlight any five advantages of information and communication technology application in health statistics.　　**[5 Marks]**

6.  Explain any five factors which can negatively influence the quality of statistical data collected in Kenyan hospitals.　　**[5 Marks]**

7.  Makini Nursing Home has 210 permanently allocated for inpatient treatment.in the month of June 4,780 patient days were recorded. Using these data calculate the percentage occupancy for the nursing home in the month of June.　　**[5 Marks]**

**SECTION B**　　　　　　　**[CHOOSE ANY THREE QUESTIONS]**

**QUESTION ONE**

In the year 2020, Thika Nursing Home had 880 beds permanently allocated for in-patient use. During the period the hospital percentage occupancy was 115%. 1700 patients were discharged home alive, 50 patients' deaths occurred. Use the available information to calculate the following administrative statistics.

a)  Occupied bed days　　　　　　　　　　　　　**[4 Marks]**

b)  Average length of stay　　　　　　　　　　　**[4 Marks]**

c)  Turnover per bed　　　　　　　　　　　　　**[4 Marks]**

d)  Excessive/vacant bed days　　　　　　　　　**[4 Marks]**

e) Turnover interval **[4 Marks]**

## QUESTION TWO

In the year 2016, Matuu hospital had 600 beds and 178,452 inpatient days were recorded. There were 700 deaths and 21,001 discharges recorded during the reference period. On admission, every patient purchased a file at Kshs. 200 and paid Kshs. 300 for each day they stayed in the hospital. Upon discharge each patient paid Kshs. 150 for meals daily. Mortuary fee was Ksh. 400 daily and on average each body stayed for three days in the morgue.

Calculate;
a) Percentage occupancy **[4 Marks]**
b) VBD/EBD **[4 Marks]**
c) ALOS **[4 Marks]**
d) ADP **[4 Marks]**
e) The revenue collected for the reference period **[4 Marks]**

## QUESTION THREE

a) Explain the concept of administrative data in health **[3 Marks]**
b) Explain any 5 uses of health administrative statistics. **[12 Marks]**
c) Differentiate between bed turn over and turn over interval in hospital administrative statistics.

**[5 Marks]**

## QUESTION FOUR

a) A hospital unit recorded the following data on 10th may 2021, previous day's figure was 43 patients, 22 patients were admitted, 15 patients were discharged, 4 patients were transferred in the unit, 3 deaths were recorded while 3 patients were transferred out of the word.

   i. Use the above data to prepare a well-balanced daily bed return **[8 Marks]**

   ii. Using the daily bed return state whether the ward was fully utilized or not and give reasons for your answer **[2 Marks]**

b) In the year 2015, Thika hospital had an average daily number of 240 available beds and an average daily number of 195 occupied beds. There were 3900 deaths and discharges.

   Calculate to one decimal place;

   i. The mean duration of stay **[3 Marks]**

   ii. The percentage bed occupancy **[3 Marks]**

   iii. Turn over interval **[2 Marks]**

   iv. The through put per bed **[2 Marks]**