



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF COMMUNITY HEALTH
BSC HEALTH SYSTEMS MANAGEMENT AND DEVELOPMENT /
HEALTH RECORDS AND INFORMATION MANAGEMENT
END OF SEMESTER FINAL EXAMINATION APRIL 2026

UNIT CODE: HRI 201 **UNIT NAME: HOSPITAL ADMINISTRATIVE STATISTICS**

DATE: April, 2026

TIME: Two Hours

Start:

Finish

INSTRUCTIONS

1. This exam is marked out of 70 marks
2. This Examination comprises **TWO** Sections
Section A: Compulsory Question (30 marks)
Section B: Long Answer Questions (40 marks)

INSTRUCTIONS: Answer Question **ONE** and any other **TWO** Questions in Section B.

SECTION A

Question one (30 Mks)

1. Differentiate between the following using examples.
 - i) Available and Occupied Bed days (2mks)
 - ii) Morbidity and mortality data (2mks)
 - iii) Discharge days and daily bed occupancy (3mks)
 - iv) Turn over interval and Turn over per bed (3mks)
2. A Meru hospital with 210 available beds (excluding newborn bassinets) rendered 4,780 patient days in June 2025. June has 30 days. Calculate the percentage of occupancy for the hospital in June 2025. (5mks)
3. Outline 5 statistical reports commonly generated by a health information department in a hospital on a monthly and annual basis. (5mks)
4. In 2024, a surgical department recorded the following data. Allocated beds were 56. Total occupied bed days were 17,062. 20 beds were closed from, 1st June to 13th August inclusive. Total discharges were 1921. Calculate the turnover interval and turnover per bed. (5mks)
5. State five examples of routine data collected in a health facility (5mks)

SECTION B: Answer any 2 questions (40 marks)

Question 6 (20 Mks)

a) Between 1st January to 31st March in 2025, St Paul's Hospital had a bed occupancy of 120%. During the same period the hospital admitted 400 patients and 50 deaths occurred and 20 patients absconded. Out of the deaths 10 were done postmortem and 3 were unclaimed. If during the same period, the facility had a through put per bed of 5 patients and needed 12 extra beds to accommodate all the patients. If the hospital administrator provided further information that indicated that patients pay 100/= daily while in the hospital upon discharge and a patient who die pay mortuary fee of 1000/= for any period they stay in the mortuary, postmortem cost 5,000/=, while a kilo of sugar was costing ksh.120 and each patient consumed $\frac{1}{4}$ kilo daily. You are contracted as a Health Administrative statistician, Calculate the following:

- i) ALOS (Average Length of Stay) (4mks)
- ii) The number of excess / vacant patient days (2mks)
- iii) The amount of money the hospital required to feed the total in patient throughout the period. (3mks)
- iv) The amount of money the hospital generated during the reference period. (3mks)
- v) the mortality Rate? (3mks)
- vi) Autopsy rate for the hospital for that period. (3mks)
- vii) Discuss how these findings could inform St Paul's hospital management on improvement for services. (2mks)

Question 7 (20 Mks)

- a) By June 2024 ABC County Hospital had 160 beds. On 1st July same year one of the ward with 50 beds was closed till the end of the year. By the end of the same year the hospital had 6,000 discharges, 200 deaths and 60 patients absconded with a total of 56,670 as inpatient days. Calculate the following:
- i) Percentage occupancy by the end of the year (3mks)
 - ii) Turn over interval including the newly opened ward (3mks)
 - iii) Average duration of stay (4mks)
 - iv) Average daily patients (3mks)
 - v) Gross mortality proportion (3mks)
 - vi) Discuss two ways in which these findings can inform decisions in ABC County Hospital. (4 marks)

Question 8 (20 Mks)

- a) Kuria Hospital opened a new **35-bed** maternity ward on January 1, 2024. During the first **20 days** of operation, the facility experienced a high volume of patients. However, due to a technical fault in the oxygen piping system, **5 beds** were declared "out of service" (unavailable for use) for a period of **5 days** (from January 6th to January 10th).

	Admissions	Discharges	Deaths	Inpatients (at Midnight)
Totals	183	143	10	583

- i. Calculate the Available bed days. (4 marks)
- ii. Percentage Occupancy. (3 marks)
- iii. If the Percentage Occupancy calculated in ii exceeds 100%, what does this imply about the ward's operation during those 20 days, and how should the hospital management respond? (7 marks)
- iv. Turn Over Interval (TOI). (3 marks)
- v. Bed Turnover Rate (3 marks).

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