



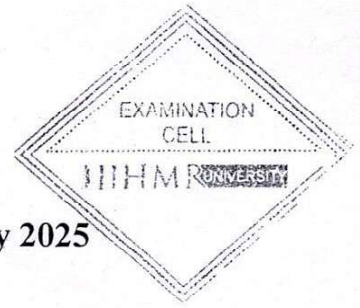
Institute of Health Management Research

MBA Hospital and Health Management

Batch-28th (2023-2025) Hospital Management

Second Year, Term 5 End Term Examination, February 2025

HOM-717 Clinical Epidemiology



Time - 3 Hours

Maximum Marks: 50 (Minimum Marks 20)

Instructions to students:

- This question paper contains 2 printed pages.
- Don't write anything on the Question Paper except writing your Enrolment No.

Part A

(Maximum Marks: 5)

Q1. Choose the correct option for the following questions (1 mark each):

- a) MCQ- Which of the following is true regarding application of Clinical Epidemiology-
 1. Which test/ examination should be used to diagnose a disease and predict its course while reducing false-positive and false-negative results
 2. To what extent will a specific clinical intervention be beneficial in terms of curing or preventing a disease?
 3. Both are true
 4. None are true
- b) MCQ- A Cross-sectional study- a type of descriptive observational study can estimate the following measure of occurrence
 1. Hazard rate
 2. Prevalence proportion
 3. Incidence proportion
 4. Risk ratio
- c) In a hospital-based disease surveillance system (under IDSP) the following set of forms are used
 1. S, P, and L form
 2. X, P, and L form
 3. P and L form
 4. S and P form
- d) True & False- Randomization in RCT means selecting study participants randomly from population
 1. True
 2. False
- e) MCQ- The ability of a diagnostic test to correctly identify individuals who truly have a disease is referred to as
 1. Sensitivity
 2. Specificity
 3. Positive Predictive Value
 4. Negative Predictive Value

Part B**(Maximum Marks: 15)****Answer the following questions (5 marks each):**

- Q2.** "In a study, researchers have analyzed the association between age and hospital acquired infection (HAI) among patients admitted in a hospital in last 3 months. The study revealed more HAIs among patients aged >60 years compared to those who are aged 60 years or less. The result showed an Odds ratio 3.2 (95% Confidence Interval 0.21 - 6.5) [Reference group age 60 years or less]. "
- Please interpret this finding. Comment on the statistical significance of this finding and provide justification for your comment.
- Q3.** Based on the findings mentioned in the last question (Study on association of Age with HAI)
- Mention what type of Study was conducted by the researcher- Observational OR Experimental and justify your answer?
 - Write a short note on further classification of that type of study with a brief explanation of each subtype.

Q4.

	SSI Developed	SSI Did not develop	Total
IC Protocol A	15	235	250
IC Protocol B	30	220	250
Total	45	455	500

You have studied patients undergoing surgeries in a hospital. You have collected data on the type of Infection Control (IC) protocol derived (A or B) for each patient and whether patient had developed any Surgical Site Infection (SSI) over the post operative period.

From the given table, please calculate-

Risk ratio (RR) of developing an SSI for patients receiving Protocol A compared to Protocol B and interpret the RR.

Part C**(Maximum Marks: 30)****Answer the following questions in detail (15 marks each):**

- Q5.** Explain the basic concepts and objectives of Surveillance. Mention the difference between active and passive surveillance.
Write a note on IDSP and its application in the surveillance system of a hospital.
- Q6.** Recently you have noticed a rise in Hospital acquired infection (HAI) cases in your hospital. You have been given a task by your higher authority to understand the extent, cause of the problem and to plan prevention and control measurement.
Given this context,
- Explain what HAI is and give examples.
 - What are the common risk factors of HAI?
 - What will be your approach as a manager for prevention and control of HAI in your hospital- identify stakeholders and write down a detailed roadmap.

