



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF HEALTH SYSTEMS MANAGEMENT AND DEVELOPMENT
BACHELOR OF SCIENCE IN HEALTH SYSTEMS MANAGEMENT AND
DEVELOPMENT
END OF SECOND SEMESTER EXAMINATION SEPTEMBER -December 2025
HMD 313 Quality Assurance - Main

TIME: Two Hours

Date : December 2025

TIME : Two (2) Hours Start-----End.....

INSTRUCTIONS TO CANDIDATES

- 1) This exam is out of 70 marks
- 2) Section-A is compulsory with a Total of 30 Marks
- 3) Answer ALL (2) questions in Section B 40 Marks

Read carefully the additional instructions preceding each section.

Section A – Short answer questions

- **Section A: Multiple Choice Questions (30 marks)**
- **Section B: Matching (40 marks)**

Case Study: Riverside Medical Center Quality Transformation

Riverside Medical Center is on a mission to improve healthcare service quality across all departments. The center has implemented quality management systems following ISO 9001 standards and adopted Six Sigma and Kaizen to support continuous improvement and defect reduction. Staff at Riverside participate in regular quality circles dedicated to collaborative problem-solving and process mapping using visual tools like flowcharts and control charts. Internal audits and benchmarking against peer hospitals help identify gaps and promote best practices. Leadership is actively involved in promoting patient-centered care, communication, and ongoing staff development, fostering a robust quality culture.

Short Answer Questions

1. Outline two roles played by quality circles in Riverside Medical Center's quality management strategy (2 Marks).
2. Highlight four benefits of Riverside Medical Center obtaining ISO 9001 certification for its operations and patients (4 Marks).
3. Outline one preventive and one reactive quality tool used by staff at Riverside, explaining how each supports quality improvement (4 Marks).
4. Outline four purposes of internal audits and how they drive continuous improvement at Riverside Medical Center (4 Marks).
5. Outline one significance of benchmarking in Riverside's quality program (1 Mark).
6. Outline two ways leadership fosters a quality culture at Riverside Medical Center (5 Marks).

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7. Match the term in Column A with its most accurate description in Column B.

Column A

Column B

1. **W. Edwards Deming**

A. A systematic, data-driven method for eliminating defects in any process.

2. **DMAIC**

B. A visual tool for organizing potential causes of a problem into categories.

3. **Gemba Walk**

C. The practice of going to the actual place where work is done to observe and understand the process.

4. **Pareto Chart**

D. A cyclical iterative method for continuous improvement of processes and products.

5. **Control Chart**

E. A bar chart that prioritizes problems from the most to least frequent.

6. **Fishbone Diagram**

F. A influential quality theorist who emphasized management's role and the PDCA cycle.

7. **Benchmarking**

G. A graph used to study how a process changes over time and to identify variation.

8. **Quality Policy**

H. The process of measuring an organization's performance against that of best-in-class organizations.

9. **PDCA Cycle**

I. The phase-based framework (Define, Measure, Analyze, Improve, Control) for process improvement.

10. **Six Sigma**

J. A formal statement from management outlining the organization's commitment to quality.

Section C – Essay Questions (30 marks)

8. **Effective communication is vital for a successful quality culture.**
- (a) Explain **two** specific ways that poor communication can hinder quality improvement efforts in a hospital. (10 marks)
 - (b) Describe **two** strategies a manager can use to improve communication about quality goals and initiatives among staff. (10marks)
9. **Quality tools are essential for problem-solving.**
- (a) Describe the purpose of **three** different quality (14 marks)
 - (b) For **one** of the tools you described, provide a specific, hypothetical example of how it could be applied to improve a patient care process (e.g., reducing medication errors, shortening clinic wait times). 6 marks)
10. **Patient feedback is a critical component of healthcare quality.**
- Explain how a hospital can systematically use this feedback to drive meaningful quality improvements. In your answer, include the steps from data collection to the implementation of changes. (20 marks)