

2025

M.Sc. 1st Semester Examination
BIOMEDICAL LABORATORY
SCIENCE AND MANAGEMENT

Paper : BMLC402X0

**[Next-Generation Quality Management
in Biomedical Laboratory]**

Full Marks : 25

Time : One Hour

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *two* questions : 2×2=4

1. Give a statement on NABL recommendation of running control sample for Quality Assessment.
2. What is appraisal cost?
3. Define TEa by citing example.
4. State your concept about Kaizen.

P.T.O.

(2)

Group - B

Answer any *two* questions : $4 \times 2 = 8$

5. Discuss about Leadership and Teamwork for the compatible execution of TQM.
6. A lab reports specificity = 96% when tested on 1,250 non-diseased samples. Elsewhere their false negatives in the diseased group were 30 and true negatives are as per specificity. Compute TN, FP, PPV and NPV if FN = 30 and TP (from disease group) = 170.
7. Illustrate your idea on 5Q Network for quality control.
8. Discuss different domains of External Quality Control.

Group - C

Answer any *one* question : $8 \times 1 = 8$

9. Following data are given for Haemoglobin (g/dl) : 11, 12, 10, 11, 09, 11, 08, 09, 11, 09. Calculate CV with interpretation of your result. Define Bias for Internal and External Quality Control. $6+2$
10. How do you calculate Sigma? "6 Sigma is far better than 1 Sigma" — justify the statement. State the thumb rule for a Levey-Jennings chart. Extrapolate the flowchart of Westgard Rule. $2+2+2+2$

Internal Assessment - 5 marks
