

**2008**

**M.Sc.**

**1st Semester Examination**

**BIO-MEDICAL LABORATORY SCIENCE & MANAGEMENT**

**PAPER—I (Unit-2)**

**Full Marks : 40**

**Time : 2 Hours**

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Module-I**

*(Quality Control of Laboratory Medicine)*

**1. Answer any five :**

**5×1**

- (a) What is RCV?
- (b) What is the difference between control and standard?
- (c) What is analytical sensitivity?
- (d) What is true value?
- (e) What is the significance of cusum chart analysis in quality control?
- (f) What is the recommendation of WHO regarding quality assurance?

*(Turn Over)*

- (g) What do you mean by false positive result of an analysis ?
- (h) What is meant by internal quality control ?
2. (a) Values of blood glucose (mg/dl) for 10 consecutive days of same serum sample are 120, 110, 118, 112, 114, 118, 122, 115, 111, 112. Give an idea with proper justification about the Laboratory precision of laboratory techniques.
- (b) What are the components of five 'Q' network system ?  
6+2

Or

- (a) State the process of selection of a method of biochemical test among the supplied two kits of either same or different methods from different companies.
- (b) State the actual procedure of using micropipette for the maintenance of quality control in a laboratory.
- (c) Name the conditions those are to be maintained strictly to fix up the reference range of a biochemical parameter ?  
4+2+2
3. (a) Define  $1_{25}$  rule violation with figure
- (b) What is Westgard Rule—give schematic diagram only.
- (c) Why the use of LJ plot is sufficient enough for the assessment of QC during the use of automated autoanalyzer.  
 $2\frac{1}{2}+3+1\frac{1}{2}$

Or

- (a) What are systematic errors ? How these errors could be rectified ?
- (b) State in brief the different methods of check-analyses required during external quality control of data.
- (2+2)+3

**Module-II***(Laboratory Management)*

4. Answer any five : 1×5
- (a) What is value engineering ?
- (b) Distinguish between marketing and selling.
- (c) Mention whether there is any difference between management and administration.
- (d) What is cost of non-conformance ?
- (e) Distinguish between controllable and non-controllable costs.
- (f) Define MIS.
- (g) What is the rôle of an excellence team ?
- (h) What do you mean by Leadership ?
5. (a) What are the eight elements of TQM ? Why integrity is important in TQM ?
- (b) In what respect have Fayol's Principle's of management resulted in contributions to management methods that are different from the techniques of Taylor's scientific management.
- (2+2)+4

Or

- (a) What are meant by the PERT and CPM ?
- (b) Write the uses of PERT and CPM in management planning and control.
- (c) What is cost effectiveness analysis ?

3+3+2

6. (a) How do you distinguish between line and staff functions ? Give reasons for distinguishing their roles in the organisation of business units.
- (b) Explain the difference between quality control and quality improvement.

5+2

Or

- (a) State the aims and objectives of marketing management.
- (b) Write the use of cost-benefit analysis in laboratory and hospital.
- (c) Explain the uses of break-even analysis in managerial decision-making of a biomedical laboratory.

3+2+2