2009

M.Sc.

1st Semester Examination

BIO-MEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—I & UNIT—II

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.

Answer *all* questions.

Module—I

(*Quality Control of Laboratory Medicine*)

[Marks : 20]

1. Answer any *five* of the following :   1×5

   (a) What are the components of 'Fire & Network' ?

   (b) Who are the customers of a laboratory ?

   (c) What is external quality control ?

   (d) What are the full form of QITs & PSTs ?

   (e) What is Predictive value ?

   (f) What is the difference between standard and control ?

   (g) What is the full form of RCV ?

(Turn Over)

(h) What is the application of Westguard rule in the maintenance of QC in a biomedical laboratory?

2. (a) Values of Haemoglobin for 15 consecutive days of same blood samples are 10·0, 11·0, 11·5, 12·0, 10·5, 10·7, 11·2, 10·1, 10·6, 11·7, 11·4, 10·9, 10·7, 12·2, 11·0.

Derive the Lg plot mathematically and draw the graph.

(b) What is the rule of Lg plot?   7+1

Or

(a) What are the analytical specificity and statistical sensitivity?

(b) Discuss in brief on OCV.

(c) What is the application of Gaussian Curve? Show the diagrammatic presentation of the curve.

$$(1\tfrac{1}{2}+1\tfrac{1}{2})+2\tfrac{1}{2}+(1+1\tfrac{1}{2})$$

3. (a) Write the process for making the control Sera in your laboratory.

(b) Mention the different types of errors generated during the analysis of the sample.   4+3

Or

(a) What are the eight elements of TQM? State in brief on the foundation part in TQM.

(b) What are meant by pre-analytical variables?

$(2+3)+2$

Module—II

(*Laboratory Management*)

[Marks : 20]

4. Answer any *five* of the following :　　　　　　　　1×5

   (a) What is NABL?

   (b) What is meant by 'Break-Even' analysis ?

   (c) What is the network analysis ?

   (d) What is the capital expenditure budget ?

   (e) Define cost centre.

   (f) Distinguish between short-run and long-run cost.

   (g) What is meant by quality cost ?

   (h) What is appraisal cost ?

5. (a) What is meant by 'Management by Objective" ? What are the different steps involved in it ?

   (b) Why selection of area is necessary before starting the foundation of a Biomedical Laboratory ?

   $$(2\tfrac{1}{2}+2\tfrac{1}{2})+3$$

Or

   (a) Assess the contributions of scientific management for the development of management thought.

   (b) State the circumstances where CPM is a better technique of Project Management than PERT.

   $$5+3$$

6. (a) Describe the process of laboratory services in a hospital organisation.

   (b) State the role of marketing in laboratory management.

   5+2

Or

(a) How does 'Leadership' influence the total laboratory management ?

(b) What do you mean by technical competence of the staff ?

(c) What are the basic objectives of cost accounting in laboratory management ?

$2\frac{1}{2}+2+2\frac{1}{2}$

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