

2011

M.Sc.

1st Semester Examination

BIO-MEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—102 (UNIT—IV)

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

(Hormone assay technique)

[Marks : 20]

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

(a) Write the full form of S-ELISA.

(b) Write the name of any one enzyme used in ELISA.

(c) What do you mean by solid phase immunoassay?

- (d) Write the name of the chemoluminescence molecule used in CLIA.
- (e) Define competitive immunoassay.
- (f) Write the full form of FIA.
- (g) Write the full form of IRMA.
- (h) Define calibrator.
2. (a) Write the steps adopted for coating the microwells used in ELISA.
- (b) Why S-ELISA is prefer over C-ELISA?
- (c) What do you mean by cross reaction in immunoassay?

3+3+2

Or

- (a) Write the principle of chemiluminescence immunoassay.
- (b) State the fundamental components of luminometer.
- (c) What is enzyme-conjugate in immunoassay? 2+4+2
3. (a) What do you mean by interassay and intraassay variation?
- (b) Write the steps adopted for testosterone assay

through C-ELISA.

3+4

Or

- (a) Write the technique for the separation of free tracer molecule from the tracer tagged antigen.
- (b) What are the advantages of ELISA over RIA?

3+4

Module—II

(Pathophysiology of Endocrine Glands)

[Marks : 20]

4. Answer any *five* of the following : 1×5
- (a) What do you mean by ultra short loop feedback system?
- (b) Write the full form of MIT.
- (c) What is Diabetes insepidus?
- (d) What is progoltrin?
- (e) What do you mean by Plasma C-peptide?
- (f) What do you mean by Glucose memory test?
- (g) Write any two causes for male infertility.
- (h) What do you mean by dynamic test of endocrine axis?

5. (a) Define primary hypothyroidism.
- (b) Write the hypothalamico-hypophyseal-thyroidal axis status in primary hypothyroidism.
- (c) Write the differences noted in plasma thyroid profile in primary hypothyroidism and secondary hypothyroidism. 2+3+3

Or

- (a) What are the causes of NIDDM and IDDM.
- (b) Write the symptoms of diabetes mellitus. (2+2)+4
6. (a) Write the name of the dynamic test for the assessment of pituitary-testicular axis.
- (b) Describe the said dynamic test.
- (c) Why fasting blood glucose testing is not a sensitive test for the assessment of glycemic state. 1+4+2

Or

- (a) Write the differences between primary and secondary hypertension.
- (b) Write the causes of obesity and any two pathophysiological complication due to obesity.

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