

2009

M.Sc.

1st Semester Examination

BIO-MEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—II & 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) What is the use of checkerboard assay in immunotechnology ?
 - (b) Write the names of any two enzymes used in ELISA.
 - (c) Write the full forms of IRMA & FIA.
 - (d) Draw the shape of the standard curve in Sandwich ELISA.
 - (e) What is meant by solid phase immunoassay ?
 - (f) What is the function of calibrator ?

(Turn Over)

- (g) What is meant by fluorescence ?
- (h) Write the names of the filters used in ELISA Reader.
2. (a) What are meant by interassay and intraassay variations ? Justify their assessment of a specific kit.
- (b) What is cross reaction in immunoassay ? Write the importance of cross reaction assessment of an antibody in immunoassay.

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

Or

- (a) Write the fundamentals of IRMA.
- (b) Why IRMA is preferred over RIA ?
- (c) Describe the hyperbola type of standard curve.
4+2+2
3. (a) State the process antibody coating of microwells in the strip of ELISA Plate.
- (b) What does enzyme conjugate is prepared in immunoassay technique ?
5+3

Or

- (a) Write the fundamental working principle of liquid scintillation counter.
- (b) Describe the functions of different components of scintillation counter.
3+4

Module—II

(Pathophysiology of Endocrine Glands)

[Marks : 20]

4. Answer any *five* of the following : 1×5
- (a) What is cranial diabetes insipidus ?
 - (b) What is glucose memory test ?
 - (c) What do you mean by hypophyseal hypogonadism ?
 - (d) What are the causes of NIDMM ?
 - (e) Mention the role of inhibin.
 - (f) What is meant by ultra-short loop feed-back system?
 - (g) What is meant by obesity ?
 - (h) What is clomiphene ?
5. (a) Write the mechanism of goitre development ?
- (b) Discuss the status of pituitary-thyroidal axis in goitre ?
- (c) What is secondary hypertension ? 2+4+2
- Or*
- (a) Which test is performed to find out the status of β -cell in Pancreas ?
- (b) Explain such test in this concern.
- (c) Discuss the major causes of hypertension. 1+4+3

6. (a) Write the principle of any one test for the assessment of pituitary-ovarian axis.
- (b) Describe briefly the test used for this purpose.

3+4

Or

(a) Write the causes of male hypogonadism?

(b) Why infertility is noted in diasects?

4+3