

2013

M.Sc.

1st Semester Examination

BIO-MEDICAL LAB Sc. & MANAGEMENT

PAPER—BLM-102(U-4)

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.

Answer all questions.

Module—I

(Hormone assay technique)

(Marks : 20)

1. Answer any *five* questions from the following : 1×5
- (a) What do you mean by monoclonal antibody?
 - (b) Write the full form of 'HRP'.
 - (c) What do you mean by solid phase assay?
 - (d) Write the full form of 'CLIA'.

(Turn Over)

- (e) Write the names of any two radioactive tracer element.
- (f) What do you mean by hot antigen ?
- (g) What do you mean by standard ?
- (h) What do you mean by competitive assay ?

2. (a) Write the merits of ELISA over RIA.
- (b) Why s-ELISA is preferred over c-ELISA ?
- (c) What do you mean by cross reaction in hormone assay technique ?
- (d) Write the protocol of s-ELISA for any one hormone assay in general. 2+2+1+3

Or

- (a) Write in brief about radiolabelling of hormone.
- (b) State the fundamental steps adopted for hormone assay as per the method of RIA.
- (c) State the working principle of γ -counter. 3+3+2
3. (a) What do you mean by interassay and intraassay variation in hormone assay ?
- (b) State the different components of CLIA.
- (c) Write the fundamental principle of CLIA device. 2+3+2

Or

- (a) Write the different steps of enzyme hormone conjugate preparation.
- (b) State the principle of hormone assay as per FIA.
- (c) What do you mean by B/BO %? 2+3+2

Module—II

(Pathophysiology of Endocrine Glands)

(Marks : 20)

4. Answer any *five* questions from the following : 1×5
- (a) Write the names of any two goitrogens.
 - (b) What do you mean by primary hypogonadism?
 - (c) Write the full form of 'NIDDM'.
 - (d) What do you mean by positive feedback system?
 - (e) Define infertility.
 - (f) Write the precursors of insulin.
 - (g) Write the names of any two components of thyroid profile.
 - (h) What do you mean by hypophysial dwarfism?
5. (a) Write the main differences between primary and secondary hyperthyroidism.
- (b) State the major causes of IDDM.
 - (c) Why fasting bloodglucose is not consider as important marker for diagnosis of diabetes?

3+2+3

Or

- (a) What do you mean by dynamic test?
- (b) Describe any one dynamic test for assessment of the activity of Pituitary-adrenal axis with its principle.
- (c) What do you mean by renal diabets insepitus?
2+(4+1)+1

6. (a) Write the major causes of male hypogonadism.
- (b) 'C-peptide is an important sensor for the assessment of pancreatic β -cell activity" — Justify the statement.
 - (c) State the action of goitrogenic substances for the development of goitre.
3+2+2

Or

- (a) Write the basic differences between primary and secondary hypertension.
 - (b) State the major symptoms of hypertension.
 - (c) Describe in brief about obesity induced hypertension.
3+2+2
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