

2012**M.Sc.****3rd Semester Examination****BIO-MEDICAL LABORATORY SCIENCE & MANAGEMENT****PAPER— BLM-302 (UNIT—19)***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****(Fundamental Clinical Biochemistry)**

1. Answer any five of the following : 1×5
- (a) What is the full name of HPLC ?
 - (b) What is the observed colour of potassium flame ?
 - (c) Name one enzyme used for diagnosis of cardiac disease.
 - (d) Which group of metals can be detected by flame photometry.
 - (e) Write the full form of TLC.
 - (f) Name one adsorption chromatography.
 - (g) Which enzyme is commonly used in PCR ?
 - (h) What is titration error ?

(Turn Over)

2. (a) Discuss the requirements and criteria of a standard solution.
- (b) What are the applications of flame photometry?

5+3

Or

- (a) Site how you could prepare protein free filtrate for biochemical analysis.
- (b) How will you process urine for biochemical analysis?

5+3

3. (a) Write the major differences between colorimeter and spectrophotometer.
- (b) What are the cardiac markers and how they can be used to diagnose heart attack?

4+3

Or

- (a) State the working principle of column chromatography.
- (b) Write the basic principle of gas chromatography.
- (c) What is column dead space?

3+2+2

Module-II

(Advance Clinical Biochemistry)

4. Answer any five questions : 1×5
- (a) Write the full name of SGPT.
 - (b) What is Conway microdiffusion ?
 - (c) Write the full form of ACP.
 - (d) Mention the wavelength you will use to quantitate protein in spectrophotometer.
 - (e) Name one method to estimate blood glucose.
 - (f) Write one test for determination of gastric function.
 - (g) Write full name of GFR.
 - (h) Name one test to estimate blood bilirubin.
5. (a) Discuss the process of determination of carbon monoxide toxicity.
- (b) State the process for diagnosis of acetone toxicity through the analysis of biological sample. 5+3
- Or
- (a) Write down the principle of amylase test for the assessment of pancreas.
- (b) Describe the process of amylase test. 3+5

6. (a) How will you test LDL and VLDL?

(b) State the basic principle for the ALP assay. 4+3

Or

(a) What do you mean by renal clearance test?

(b) State the steps of inulin clearance test.

(c) Why inulin is used for the assessment of GFR?

2+3+2