

Bio-Medical Laboratory Science and Management
MSc. Part-II Examination, 2007

ADVANCED CLINICAL BIOCHEMISTRY

PAPER-X/U-19

Full Marks : 50

Time : 2 hours

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate and answers wherever necessary

UNIT-19

Answer Q. No. 1 and any *four* from the rest

1. Answer any *five* of the following : 2x5
- (a) Write the principle of UV spectrophotometry.
 - (b) Write the objectives of drug screening **in plasma**.
 - (c) What is creatine clearance test?
 - (d) What is myocardial infarction?
 - (e) What is gastric function test?

- (f) How does TNF- α correlates with liver cirrhosis ?
- (g) What are the different conditions responsible for **the alteration in plasma triglyceride level ?**
- (h) Mention the reference range of Na' & K' levels in **serum.**
2. (a) What is gamma GT and **mention its clinical significance.**
- (b) Write the clinical **significance of serum** LDH activity.
- (c) Describe a method for the estimation of the activity of serum LDH. (1+1)+3+5
- (a) What are the basic precautions to be taken before quantitative estimation of bilirubin in serum ?
- (b) Write the clinical importance of α -amylase study in **serum.**
- (c) Discuss the protocol of CPK assay in supplied serum sample. 2+3+5
4. (a) Describe the working principle of flame photometer **with a suitable diagram.**
- (b) **Describe' the pathophysiological conditions developed due to high level of urea in blood.**
- (c) Write **the method for quantification of calcium in** provided sample by the help of a flowchart. (3+2)+2+3

5. (a) **What is conway microdiffusion technique?**
- (b) **Write the procedure of alcohol screening in the supplied plasma by microdiffusion technique'.**
- (c) **How do you screen the salicylate in serum of a patient ?** 2+4+4
6. (a) **Write the clinical importance of `renal function test' and `pancreatic function test'.**
- (b) **Mention the names of biochemical tests used for assessment of renal functions.**
- (c) **Mention the pathophysiological conditions where cardiac function tests are essential.** (2+2)+3+3
7. (a) **Write the basic principle of PAGE?**
- (b) **How do you prepare stacking gel and separating gel?**
- (c) **What is the clinical importance of PAGE and TLC in Biomedical Laboratory Science?** 2+(2+2)+(2+2)