



SA-1484

P. G. D. M. L. T. Examination
March / April – 2011
Clinical Biochemistry

Time : 3 Hours]

[Total Marks : 70

Instruction :

नीचे दृशावेव निशानीवाणी विगतो उत्तरवडी पर अवश्य वपवी. Fillup strictly the details of signs on your answer book.	Seat No.:
Name of the Examination :	<input type="text"/>
<input type="text" value="P. G. D. M. L. T."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="CLINICAL BIOCHEMISTRY"/>	<input type="text"/>
Subject Code No.:	<input type="text"/>
<input type="text" value="1"/> <input type="text" value="4"/> <input type="text" value="8"/> <input type="text" value="4"/>	Section No. (1, 2,.....):
<input type="text" value="1&2"/>	<input type="text"/>
	Student's Signature

SECTION - I

- 1 Answer any **three** of the following : 9
- (a) Define : Bias, Correlation coefficient (r) and Efficiency of test.
 - (b) Which precautions will you follow to prevent transmission of pathogens in a laboratory ?
 - (c) How will you derive a normal reference range ?
 - (d) What are kinetic assays ? What do you mean by positive kinetics and negative kinetics, give examples ?
- 2 Answer any **two** of the following : 8
- (a) Enlist the various types of supporting media used in electrophoresis. Describe any two of them with their advantages.
 - (b) State the principle of Ion selective electrodes and describe the operation of a Ion selective electrode in a clinical laboratory.
 - (c) What are the specifications preferred for the selection of a photometer ? What are the advantages and disadvantages of single cell photometer ?
- 3 Answer any **two** of the following : 10
- (a) What is normal range and how do you prepare a Levey Jenning Chart ? Name two centres which are coordinating the external quality control programme.

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- (b) How will you start and maintain a radioisotope laboratory? What are the precautions to be taken for handling radioactive spills?
- (c) Give a detailed account of the automation of an analytical process. What are the advantages and disadvantages of automation?
- 4 Write notes on any **two** of the following : 8
- (a) Applications of computer in a clinical laboratory.
- (b) Discuss the application of ultracentrifuge in a research set up and clinical set up.
- (c) State the principle of Flame photometry. Enlist the various components of an Emission Flame photometer. What is the application of Atomic absorption Flame photometer?

SECTION - II

- 5 Give principle and significance of estimation of any **two** of the following : 8
- (a) Serum proteins by electrophoretic method.
- (b) Creatine phosphokinase.
- (c) Serum urea by kinetic GLDH method.
- 6 Answer any **two** of the following : 8
- (a) Explain renal function tests in detail.
- (b) Estimation of total and direct bilirubin by Diazo method.
- (c) Estimation of tri-iodothyroxine by the ELISA method.
- 7 Answer any **two** of the following : 10
- (a) Classification of carbohydrates. Describe glucose tolerance test.
- (b) Immunoglobulins and their classification.
- (c) Classification of lipids and explain essential fatty acids.
- 8 Write short notes on any **three** of the following : 9
- (a) Uric acid and gout
- (b) Ratios of lipid profile and their importance
- (c) Acidosis and Alkalosis
- (d) Phosphatases.