

**MANIPAL UNIVERSITY**  
**SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2010**  
**SUBJECT: CLINICAL BIOCHEMISTRY**

Monday, June 07, 2010

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ **Answer ALL questions. Draw diagrams if necessary.**

- 1A. Discuss the serum protein electrophoresis with its interpretation and clinical significance.
- 1B. Elaborate on HbF and its detection. Add a note on thalassemia.
- 1C. What are the indications for liver function tests. Discuss standard LFT .

(10×3 = 30 marks)

**2. Write detailed notes on:**

- 2A. Metabolic fate of LDL.
- 2B. Fasting and postprandial regulation of blood glucose.
- 2C. Oncofetal antigen.
- 2D. pH regulation by phosphate buffer.
- 2E. Plasma proteins.

(6×5 = 30 marks)

**3. Write short notes on**

- 3A. Cholelithiasis
- 3B. GDM
- 3C. Growth hormones
- 3D. HbS
- 3E. Bilirubin

(4×5 = 20 marks)



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**SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2010**  
**SUBJECT: HAEMATOLOGY AND CLINICAL PATHOLOGY**

Wednesday, June 09, 2010

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ **Answer ALL questions. Draw diagrams wherever necessary.**

- 1A. Define and classify anaemia based on etiology. Discuss iron deficiency anaemia.
- 1B. Write a note on structure of normal hemoglobin. Discuss abnormal hemoglobin derivatives and their detection.
- 1C. Enumerate different chemical tests done on urine. Discuss detection of protein in urine by different methods with its clinical significance.

(10×3 = 30 Marks)

**2. Write detailed notes on:**

- 2A. PCV
- 2B. Myelopoiesis
- 2C. Sputum for AFB
- 2D. Platelet function test
- 2E. Neubauer chamber

(6×5 = 30 Marks)

**3. Write short notes on:**

- 3A. Structure and function of RBC
- 3B. Casts in urine
- 3C. Romanowsky stain
- 3D. Absolute eosinophil count
- 3E. Prothrombin time

(4×5 = 20 Marks)



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**MANIPAL UNIVERSITY****SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2010****SUBJECT: IMMUNOHAEMATOLOGY**

Friday, June 11, 2010

Time: 14:00-15.30 Hrs.

Max. Marks: 40

**✍ Answer ALL the questions.**

1. Describe in detail about ABO blood group system.

(10×1 = 10 marks)

2. Write short notes on:

2A. Quality assurance in Blood bank.

2B. Adverse transfusion reactions.

2C. Rh haemolytic disease of the newborn.

2D. Screening and identification of antibodies.

2E. Anticoagulant preservative solutions.

(6×5 = 30 marks)

