

**MANIPAL UNIVERSITY**  
**SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2012**  
**SUBJECT: CLINICAL BIOCHEMISTRY**

Monday, June 11, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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

- 1A. Define and classify immunoglobulin. Discuss basic structure of immunoglobulin with neat diagram. Add a note on IgM.
- 1B. Define and classify enzyme. Discuss the enzymes which indicate hepatocellular damage.
- 1C. Name various sources of glucose. Discuss regulation of blood glucose level.

(10×3 = 30 marks)

**2. Write detailed notes on:**

- 2A. Chylomicrons.
- 2B. Sodium potassium pump.
- 2C. Oncofetal antigen.
- 2D. Regulation of pH by renal mechanism.
- 2E. Growth hormone.

(6×5 = 30 marks)

**3. Write short notes on:**

- 3A. G6 PD deficiency
- 3B. Metabolic alkalosis
- 3C. Gout
- 3D. Wilson's disease
- 3E. Symptoms of diabetes

(4×5 = 20 marks)



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**SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2012**  
**SUBJECT: HAEMATOLOGY AND CLINICAL PATHOLOGY**

Wednesday, June 13, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer all Questions. Draw diagrams wherever necessary.**

- 1A. Enumerate different chemical tests done on urine. Discuss detection of protein in urine by different methods with its clinical significance.
- 1B. Name any three special test used in the detection of hemolytic anemia. Describe any one test.
- 1C. Write briefly on the constituents of blood with a short note on myelopoiesis.

(10×3 = 30 marks)

**2. Write detailed notes on:**

- 2A. Microscopic examination of semen
- 2B. Internal quality control
- 2C. CML
- 2D. PAS
- 2E. Hb by Sahli's method

(6×5 = 30 marks)

**3. Write short notes on:**

- 3A. vWD
- 3B. Hay's test
- 3C. Diagnosis of malaria
- 3D. Clotting time
- 3E. Total WBC

(4×5 = 20 marks)



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**MANIPAL UNIVERSITY**  
**SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2012**  
**SUBJECT: IMMUNOHAEMATOLOGY**

Friday, June 15, 2012

Time: 10:00-11.30 Hrs.

Max. Marks: 40

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✍ **Answer ALL the questions.**

1. Describe in detail about Rh blood group system.

(10 marks)

2. **Write short notes on:**

2A. Cross matching.

2B. Exchange transfusion.

2C. Packed red blood cells.

2D. Leukocyte antigens.

2E. Donor selection and blood collection.

(6×5 = 30 marks)

