

MANIPAL UNIVERSITY

SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – DECEMBER 2009

SUBJECT: CLINICAL BIOCHEMISTRY

Thursday, December 10, 2009

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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

1. Explain the role of different enzymes in myocardial infarction.
2. Discuss the classification, metabolic derangement, complications and diagnosis of Diabetes Mellitus.
3. What are the blood buffer systems in the body? Discuss the role of different buffer systems in the regulation of pH.

(10×3 = 30 marks)

4. Write detailed notes on:

- 4A. Sodium Potassium pump.
- 4B. Protein electrophoresis.
- 4C. Biuret method.
- 4D. Gout.
- 4E. Insulin.
- 4F. Ketone bodies.
- 4G. Respiratory regulation of pH.

(5×7 = 35 marks)

5. **Write short notes on:**

- 5A. Jaundice.
- 5B. HDL cholesterol.
- 5C. Hashimoto's disease.
- 5D. Estrogen.
- 5E. Multiple myeloma.

(3×5 = 15 marks)



MANIPAL UNIVERSITY

SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – DECEMBER 2009

SUBJECT: HAEMATOLOGY AND CLINICAL PATHOLOGY

Friday, December 11, 2009

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL questions.

1. Describe the structure of hemoglobin. What are the various methods of hemoglobin estimation? Describe in detail the standard method of hemoglobin estimation.

(3+5+7 = 15 marks)

2. Describe the common laboratory methods of malaria detection, giving their advantages and disadvantages.

(15 marks)

3. Write short notes on:

- 3A. Anticoagulants.
3B. Microscopic examination of urine.
3C. Principles of cell counting.
3D. Quality control measures in hematology.
3E. Chronic myeloid leukemia.

(6×5 = 30 marks)

4. Describe the principle, procedure and interpretation of the following tests:

- 4A. Fouchet's test.
4B. Prothrombin time.
4C. ESR.
4D. Floation technique in stool examination.

(5×4 = 20 marks)



Reg. No.									
----------	--	--	--	--	--	--	--	--	--

MANIPAL UNIVERSITY

SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – DECEMBER 2009

SUBJECT: IMMUNOHAEMATOLOGY

Saturday, December 12, 2009

Time: 10:00-11.30 Hrs.

Max. Marks: 40

 Answer ALL the questions.

1. Describe diagnostic tests for infectious diseases.

(10 marks)

2. Write short notes on:

2A. Rh haemolytic disease of the newborn.

2B. Autoantibodies.

2C. Donor selection and blood collection.

2D. Antibody titration.

2E. Packed red cells.

(6×5 = 30 marks)

