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## MANIPAL UNIVERSITY

SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2008

SUBJECT: CLINICAL BIOCHEMISTRY

Monday, June 09, 2008

Time: 3 Hrs.

Max. Marks: 80

✍ Answer all questions. Draw diagrams if necessary.

1. Write in detail about liver function tests. (10 marks)
2. Explain the role of different enzymes in myocardial infarction. (10 marks)
3. Write in detail about the regulation of blood glucose. (10 marks)
4. Write detailed notes on:
  - 4A. Plasma proteins.
  - 4B. Thyroid hormones.
  - 4C. Creatinine clearance test.
  - 4D. Tumour markers.
  - 4E. Bence Jones Protein.
  - 4F. Classification of lipids.
  - 4G. SGPT and SGOT.(5×7 = 35 marks)
5. Write short notes on:
  - 5A. Acidosis.
  - 5B. Hypoglycemia.
  - 5C. GGT.
  - 5D. Benedict's test.
  - 5E. Hyperkalemia.(3×5 = 15 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2008**  
**SUBJECT: HAEMATOLOGY AND CLINICAL PATHOLOGY**

Tuesday, June 10, 2008

Time: 3 Hrs.

Max. Marks: 80

**Answer ALL questions.**

1. Describe the structure and function of hemoglobin. List the various methods used for hemoglobin estimation. Discuss the principle of the standard method for hemoglobin estimation.

(4+6+5 = 15 marks)

2. Name the tests done on urine in a patient with jaundice. What are the principles of these tests and how are they done?

(2+13 = 15 marks)

3. Write short notes on:

3A. LE cell test

3B. Composition and preparation of Leishman stain

3C. Organized sediment of urine

3D. CSF findings in pyogenic meningitis.

3E. Methods of detection of cyst and ova in stool

(6×5 = 30 marks)

4. Write briefly on:

4A. Prothrombin time

4B. Cleaning of glassware

4C. Screening of malarial parasite

4D. RBC and WBC pipettes.

(5×4 = 20 marks)



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# MANIPAL UNIVERSITY

SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2008

SUBJECT: IMMUNOHAEMATOLOGY

Wednesday, June 11, 2008

Time: 1½ Hrs.

Max. Marks: 40

**✍ Answer all questions.**

1. What are anticoagulants? Elaborate on the different anticoagulants used in the blood bank. (10 marks)

2. Write short notes on:

2A. Direct coombs test

2B. Fresh frozen plasma.

2C. Compatibility test in urgent cases.

2D. Bombay blood group.

2E. Du typing.

(6×5 = 30 marks)

