

MANIPAL UNIVERSITY
SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – DECEMBER 2008
SUBJECT: CLINICAL BIOCHEMISTRY

Wednesday, December 10, 2008

Time: 10.00-13.00 Hrs.

Max. Marks: 80

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

1. Discuss about sickle cell haemoglobin and its detection. Briefly explain the sickle cell syndromes.
2. Discuss in detail about the regulation of blood glucose.
3. Define enzyme. Discuss about the enzymes indicating hepatocellular damage.

(10×3 = 30 marks)

4. Write detailed notes on:

- 4A. Respiratory regulation of pH.
- 4B. Intravenous GTT.
- 4C. Bence Jones proteins.
- 4D. Salting out.
- 4E. Ketone bodies.
- 4F. SGPT and SGOT.
- 4G. AFP.

(5×7 = 35 marks)

5. Write short notes on:

- 5A. Hyponatremia.
- 5B. A/G ratio.
- 5C. Alpha-1 globulin.
- 5D. CK
- 5E. Metabolic acidosis.

(3×5 = 15 marks)



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

Thursday, December 11, 2008

Time: 10.00-13.00 Hrs.

Max. Marks: 80

☞ Answer ALL questions.

1. Classify leukemias. Discuss the laboratory diagnosis of chronic myeloid leukemia.
(4+11 = 15 marks)

2. What is quality assurance? What are the various ways of ensuring internal quality control in a hematology laboratory?
(2+13 = 15 marks)

3. Write short notes on:
 - 3A. Lab diagnosis of iron deficiency anemia.
 - 3B. CSF findings in pyogenic meningitis.
 - 3C. Absolute Eosinophil count.
 - 3D. Factors affecting ESR.
 - 3E. Advantages and disadvantages of any three methods of malaria detection.
(6×5 = 30 marks)

4. Describe the principle, procedure and interpretation of the following tests:
 - 4A. Heat and acetic acid test.
 - 4B. Flootation technique in stool.
 - 4C. APTT.
 - 4D. Hemoglobin estimation by Cyanmethemoglobin method.
(5×4 = 20 marks)



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MANIPAL UNIVERSITY

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

SUBJECT: IMMUNOHAEMATOLOGY

Friday, December 12, 2008

Time: 10.00-11.30 Hrs.

Max. Marks: 40

✍ **Answer ALL the questions.**

1. Describe haemolytic disease of the newborn and its management.

(10 marks)

2. **Write short notes on:**

2A. Diagnostic tests for HBsAg.

2B. Antigen H.

2C. Standardization of equipment and calibration procedures.

2D. Anticoagulant preservative solutions.

2E. Plateletpheresis.

(6×5 = 30 marks)

