Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination - May 2012

Time: 3 Hours] [Max. Marks: 100]

BIOCHEMISTRY - II

Paper - I

Q.P. CODE: 9674

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary. **Section A and section B are to be written in same Answer Book**

Section A – Clinical Biochemistry [50 marks]

LONG ESSAY **1 X 20 = 20 Marks**

1. Outline the complete metabolism, transport and clearance of bilirubin in our body. What are the genetic disorders associated with bilirubin metabolism? Explain the laboratory tests involved in the differential of jaundice. Write the principle of Vanden-bergh's test.

SHORT ESSAY **3 X10= 30 Marks**

2. Explain how the PH of a solution is measured with the help of a combination electrode. How do you calibrate a PH meter?
3. Describe the basic physiology of renal function. Enumerate the laboratory analytical methods for the assessment of renal function. Add a note on creatinine clearance test.
4. Discuss the limitations of laboratory assessment of various tumor markers and the factor affecting the results of different analytical procedures.

Section B – Pharmacological Biochemistry [50 marks]

LONG ESSAY **1 X 20 = 20 Marks**

5. Discuss the pathophysiological basis and the formulation of toxicologic differential diagnosis and designing the clinical laboratory testing protocol for each of the five major toxicologic syndromes.

SHORT ESSAY **3 X 10 = 30 Marks**

6. Sketch the differences between phase I and phase II drug metabolism reactions.
7. Give the designing and implementing standardizes STAT panels of laboratory tests for evaluation of overdosed/poisoned patients.
8. Discuss the aspect of reference ranges and the methods of establishing the therapeutic drug monitoring.

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Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination - May 2012

Time: 3 Hours] [Max. Marks: 100]

BIOCHEMISTRY - II

Paper - II

Q.P. CODE : 9675

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAY **2 X 20 = 40 Marks**

1. Describe the reactions TCA cycle.
2. How Glycine is metabolized and enumerates the important compounds synthesized by glycine.

SHORT ESSAY **6X10= 60 Marks**

3. Explain the methods of estimation of proteins in body fluids
4. Describe the functions of phospholipids
5. Role of dietary fibers in human being
6. Explain the major roles of purines and pyrimidines
7. Write the RDA, functions and deficiency symptoms of Vitamin A.
8. Significance of Lp (a) Estimation in cardiovascular diseases.

Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination – May 2012

Time: 3 Hours] [Max. Marks: 100]

HAEMATOLOGY & BLOOD TRANSFUSION - II

Paper - I

Q.P. CODE: 9678

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAY **2 X 20 = 40 Marks**

1. Define Myelodysplastic Syndrome. Describe the clinical features, peripheral smear and bone marrow findings.
2. Discuss the etiology, clinical features and laboratory investigations in Megaloblastic Anemia.

SHORT ESSAY **6X10= 60 Marks**

3. Discuss in detail the methods and interpretation of Hb electrophoresis.
4. Discuss Pancytopenia
5. Peripheral smear picture in different phase of Chronic Mycloid leukemia.
6. Discuss in detail factor VIII inhibitor study.
7. Discuss the methods of management of biomedical waste.
8. Discuss in detail, the clinical features, and laboratory investigation in Hemophilia A

Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination – May 2012

[Time: 3 Hours] [Max. Marks: 100]

HAEMATOLOGY & BLOOD TRANSFUSION - II

Paper - II

Q.P. CODE : 9679

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAY **2 X 20 = 40 Marks**

1. Mention the types of blood groups. Discuss the importance of Rh system. Du variant of Rh system & Bombay blood group.

2. Discuss the blood components & indications.

SHORT ESSAY **6X10= 60 Marks**

3. Complications of blood transfusion
4. Testing done for transfusion transmitted diseases.
5. Criteria used for selection of good blood donor.
6. Method of blood collection
7. Haemolytic disease of new born
8. Storage lesions or Changes which occur during storage of blood.

Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination - Nov 2012

[Time: 3 Hours] [Max. Marks: 100]

BIOCHEMISTRY - II

Paper - I

Q.P. CODE: 9674

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary. **Section A and section B are to be written in same Answer Book**

Section A – Clinical Biochemistry [50 marks]

1 X 20 = 20 Marks

LONG ESSAY

1. Describe the Thyroid Function tests

3 X10= 30 Marks

SHORT ESSAY

2. Explain the role of Tumor markers
3. Describe preanalytical Errors
4. Ion selective Electrodes (ISE)

Section B – Pharmacological Biochemistry [50 marks]

1 X 20 = 20 Marks

LONG ESSAY

5. Describe the concepts of the drug clearance

3 X 10 = 30 Marks

SHORT ESSAY

6. Explain the actions of bronchodilators
7. Explain the social consequences of testing of drug abuse
8. Describe the importance of antidotes with examples

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Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination - Nov 2012

[Time: 3 Hours] [Max. Marks: 100]

BIOCHEMISTRY - II

Paper - II



Q.P. CODE : 9675

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAY **2 X 20 = 40 Marks**

1. Discuss the oxidation of fatty acid in detail. Add a note on energetics of fatty acid oxidation.
2. Discuss the structure of DNA and different types of RNA's with neat diagrams.

SHORT ESSAY **6X10= 60 Marks**

3. Explain glucose tolerance test and its significance.
4. Write briefly on: a) Alkaptonuria b) Phenylketonuria c) Homocystinuria d) Maple syrup
5. Discuss vitamin D under the headings: Metabolism, Biochemical role and deficiency manifestations.
6. Write briefly on: a) Protein energy malnutrition b) Respiratory quotient.
7. Discuss the applications of radioisotopes in diagnosis and research.
8. Explain the absorption of iron in the intestine and add a note on the disorders associated with iron metabolism.

Rajiv Gandhi University of Health Sciences, Karnataka

Second Year M.Sc. (MLT) Degree Examination – Nov 2012

Time: Three Hours **Max. Marks: 100 Marks**

HAEMATOLOGY & BLOOD TRANSFUSION - II
PAPER – I

Q.P. CODE: 9678

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary. Answer all questions

LONG ESSAYS **2 x 20 = 40 Marks**

1. Describe etiology, clinical features and investigation of microcytic hypochromic anaemia.
2. Classify Acute leukemia. How do you investigate a case of Acute leukemia with neat diagrams?

SHORT ESSAYS **6 x 10 = 60 Marks**

3. Megaloblastic anaemia
4. Osmotic fragility test - Indication and methods
5. Aplastic anaemia
6. Antiphospholipid antibody syndrome
7. Automation in haematology
8. Thrombocytosis

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Rajiv Gandhi University of Health Sciences, Karnataka

Second Year M.Sc (MLT) Degree Examination – Nov 2012

Time: Three Hours **Max. Marks: 100 Marks**

HAEMATOLOGY & BLOOD TRANSFUSION - II
PAPER – II

Q.P. CODE: 9679

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary. Answer all questions

LONG ESSAYS **2 x 20 = 40 Marks**

1. Transfusion reaction and investigation of transfusion reaction
2. Compatibility testing

SHORT ESSAYS **6 x 10 = 60 Marks**

3. Hemolytic disease of new born
4. Different blood group systems
5. Investigation of transfusion reaction
6. Stem cell processing and storage
7. Rh grouping and Du test
8. Exchange transfusion

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