Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination – OCT-2017

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

BIOCHEMISTRY – II

Paper - I (Revised Scheme – 2)

Q.P. CODE: 9814

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. Write an essay on Thyroid Function Tests.

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

2. Write in detail about new born screening.
3. Enumerate biliary tract diseases. Describe laboratory analysis of gall stones.
4. Discuss the composition, collection and biochemical analysis of CSF.

Section B – Laboratory Management [50 marks]

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

5. Discuss Total laboratory Automation in clinical biochemistry laboratory.

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

6. Pre-analytical variables
7. Discuss POCT under following headings (a) Requirements (b) Classification (c) Applications.
8. Write sources, routes of entry, metabolism and overview of analysis of carbon monoxide, alcohol.

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination – OCT-2017

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

BIOCHEMISTRY – II

Paper – II (Revised Scheme – 2)

Q.P. CODE: 9815

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

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

1. Write the steps Glycolysis and its energetics? Methods for determining blood glucose and glycated Haemoglobin.
2. Write the Metabolism of Phenylalanine and Tyrosine? Add a note on their specialized products.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Plasma Proteins – Types, characteristics and functions.
4. Define enzymes. Write the factors affecting enzyme activity in detail.
5. Write the RDA, sources, functions and disorders of Vitamin A and Vitamin D.
6. Discuss the metabolism of Calcium. Add a note on its hormonal regulation.
7. Trace out the steps of Cholesterol biosynthesis. Add a note on Atherosclerosis.
8. Add a note on – a) Alkaptonuria b) Pellagra c) Maple syrup urine disease d) Homocysteniuria e) Wilson Disease

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - OCT-2017

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

Microbiology – II

Paper – I (Systematic Bacteriology, Applied Microbiology and Immunology)

(Revised Scheme – 2)

Q.P. CODE: 9816

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 pathogenesis, laboratory diagnosis and prophylaxis of diphtheria.
2. Define and classify hypersensitivity. Discuss in detail the mechanism of Type I hypersensitivity.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Laboratory diagnosis of Enteric fever
4. Chlamydia trachomatis
5. Discuss the pathogenesis and laboratory diagnosis of Bacillus anthracis
6. ELISA
7. Automation in microbiology laboratory
8. Antimicrobial susceptibility testing

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination – OCT-2017

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

Microbiology – II

Paper – II (Virology, Mycology and Parasitology)

(Revised Scheme – 2)

Q.P. CODE: 9817

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 morphology, life cycle and laboratory diagnosis in Ankylostoma duodenale.
2. Classify Herpes group of virus. Write in detail about Herpes simplex virus.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Life cycle of Leishmania donovani
4. Laboratory diagnosis of Malaria
5. Prophylaxis of Rabies Virus
6. Antigenic variation of Influenza virus
7. Sporothrix schenckii – pathogenicity and laboratory diagnosis
8. Mycetoma

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination – OCT 2017

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

Haematology and Blood Transfusion – II

Paper – I

(Revised Scheme – 2)

Q.P. CODE: 9818

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

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

1. Discuss in detail pathophysiology, clinical features, laboratory diagnosis of Von Willebrand diseases.
2. Discuss in detail etiology, pathology, laboratory investigation of disseminated intravascular coagulation.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Antiphospholipid antibody syndrome
4. Platelet function test
5. Glanzmann's thrombasthenia
6. Structure and functions of platelets
7. Fibrinogen Assays
8. Normal haemostatic mechanism

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination – OCT 2017

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

Haematology and Blood Transfusion – II

Paper – II

(Revised Scheme – 2)

Q.P. CODE: 9819

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 and Bombay Blood Group.
2. Discuss the various anticoagulants used to store blood. Describe briefly the changes that occurs in stored blood

SHORT ESSAY **6 X 10 = 60 Marks**

3. Fresh frozen plasma and its indication for use
4. Types of hemapheresis
5. Explain disposal of waste in blood bank
6. Discuss in brief Tissue banking
7. Stem cell processing, storage and transplantation
8. Medico legal aspects of blood transfusion

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - APRIL 2017

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

BIOCHEMISTRY – II

Paper - I (Revised Scheme – 2)

Q.P. CODE: 9814

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. Classify Hormones. Discuss thyroid function tests. Add a note on role of anti-TPO.

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

2. Liver function tests
3. Renal replacement therapy
4. Clinical utility of cardiac markers in diagnosis and management.

Section B – Laboratory Management [50 marks]

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

5. Diagnosis of inborn errors of metabolism

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

6. Point of care testing (POCT)
7. Autoanalyzers
8. Preanalytical variables

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - APRIL 2017

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

BIOCHEMISTRY – II

Paper – II (Revised Scheme – 2)

Q.P. CODE: 9815

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 metabolism of phenylalanine and tyrosine. Describe the inborn errors associated with its metabolism.
2. Explain the formation of uric acid. Explain the qualitative and quantitative methods of estimation of uric acid. Add a note on its clinical significance and mention its normal serum levels.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Describe Gestational Diabetes Mellitus. Add a note on screening and diagnosis of GDM.
4. Classify Plasma Lipoproteins and mention their functions. Explain the association of lipids and lipoproteins with coronary artery disease. Describe the use of lipoprotein electrophoresis in the diagnosis of various disorders.
5. Describe isoenzymes and its clinical significance with examples.
6. Discuss the metabolism of Calcium.
7. Photometry and Nephelometry
8. Write briefly about Free radicals and Antioxidants.

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination – APRIL 2017

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

Microbiology – II

Paper – I (Systematic Bacteriology, Applied Microbiology and Immunology)

(Revised Scheme – 2)

Q.P. CODE: 9816

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

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

1. Enumerate the organisms causing gas gangrene. Describe the morphology, cultivation, pathogenicity and laboratory diagnosis of Clostridium perfringens.
2. Classify Antigen – Antibody reactions. Write in detail about precipitation reactions.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Laboratory diagnosis of Vibrio cholera
4. Standard tests for Syphilis
5. Bacillary dysentery
6. Ig G – Structure and function
7. Dry heat methods of Sterilization
8. Kirby – Bauer disc diffusion method

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination – April 2017

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

Microbiology – II

Paper – II (Virology, Mycology and Parasitology)

(Revised Scheme – 2)

Q.P. CODE: 9817

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 morphology, pathogenicity and laboratory diagnosis of Influenza virus. Add a note on its prophylaxis.
2. Describe the morphology, life cycle, pathogenicity and laboratory diagnosis of Wuchereria bancrofti.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Life cycle and pathogenesis of Plasmodium falciparum
4. Ptyriasis versicolor
5. Laboratory diagnosis of Cryptococcosis
6. Pathogenicity of Herpes Simplex viruses Type I and Type II
7. Life cycle and pathogenesis of Entamoeba histolytica
8. Prophylaxis of Polio virus

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