Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - MAY 2015

[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. Enumerate Hepatitis viruses. Describe the morphology, pathogenesis and laboratory diagnosis of Hepatitis B Virus infection.
2. Classify Nematode. Describe the morphology, life cycle, pathogenesis and laboratory diagnosis of Ascaris lumbricoides.

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

3. Pathogenesis and laboratory diagnosis of Toxoplasma gondii
4. Cysticercosis
5. Paul Bunnel Test
6. Describe the various methods of cultivation of viruses.
7. Pathogenesis and laboratory diagnosis of Candidiasis
8. Mycotoxins

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - APRIL/MAY 2015

[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. Define thrombocytopenia. Discuss the various investigations in a case of hemorrhagic disorder.
2. Discuss in detail platelet qualitative disorders.

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

3. Flow Cytometry
4. Screening tests for coagulation disorders
5. Von -Willebrand's disease
6. Fibrin Degradation Products
7. Quality control in hematology
8. Investigation of thrombotic disorders

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - MAY 2015

[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. Describe different components of blood and their preparation, shelf life, storage and uses.
2. Explain Anticoagulants used to store blood and methods of blood collections.

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

3. Explain transfusion reaction and investigations done in a case of a transfusion reaction.
4. Explain hemolytic disease of newborn.
5. Explain screening of blood donors and enumerate tests used for screening.
6. Write a note on diseases transmitted by transfusion.
7. Enumerate the different blood grouping system and describe ABO system.
8. Write a note on Coomb's test with indications.

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Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination - APRIL/MAY 2015

[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. Write an essay on renal function tests.

SHORT ESSAY **3 X10= 30 Marks**

2. Liver specific enzymes
3. Explain the renal mechanism of acid-base balance. Add a note on disorders of acid base balance.
4. Describe the separation of amino acids by paper chromatography.

Section B – Pharmacological Biochemistry [50 marks]

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

5. Classify "Drug of Abuse" and explain their clinical manifestations.

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

6. Drug metabolizing enzymes and their impact on variability of drug response
7. Difference between urine and blood for monitoring and detection of drugs
8. Write a note on the concept of drug absorption and bioavailability

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Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination - MAY 2015

[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 enzymes involved in the process of biological oxidation. Add a note on oxidative phosphorylation.
2. Write an essay on metabolism of Phenylalanine and Tyrosine. Describe the inborn errors of metabolism of Phenylalanine and Tyrosine.

SHORT ESSAY **6X10= 60 Marks**

3. Explain the separation of lipoproteins. Add a note on hyperlipoproteinemias.
4. Discuss Vitamin D under the following heads:
   a) Chemistry b) RDA c) Functions d) Deficiency
5. What are radioisotopes? Write about, the radioactive emissions?
6. Outline the Hexose Monophosphate pathway and write its significance.
7. Classify Diabetes mellitus. Add a note on diagnostic and monitoring criteria for Diabetes.
8. Describe the functions of thyroid hormones and its associated disorders.

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Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination – APRIL/MAY 2015

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

MICRO-BIOLOGY - II

Systematic Bacteriology, Applied Microbiology and Immunology

Paper - I

Q.P. CODE : 9676

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

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

1. Classify the genus Streptococci. Explain morphology, cultural characters, toxins production, disease caused and lab diagnosis of Streptococcus pyogens.
2. Define complement system. Explain the pathways of complement activation and biological effects of complement.

SHORT ESSAY **6X10= 60 Marks**

3. Lab diagnosis and prophylaxis of Clostridium tetani
4. Classify the genus Mycobacteria and explain Mycobacterium leprae in detail.
5. Morphology, pathogenicity and lab diagnosis of Vibrio cholerae
6. Define auto immunity and explain the mechanisms of auto immunity. Add a note on various autoimmune disorders.
7. Bacteriological analysis of water
8. Enumerate the bacterias causing respiratory tract infection. Explain lab diagnosis of any one.

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Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination – MAY 2015

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

MICROBIOLOGY - II

Virology, Mycology and Parasitology

Paper - II

Q.P. CODE : 9677

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 of Rhabdovirus. Write the pathogenesis, laboratory diagnosis of rabies. Add a note on prophylaxis against rabies.
2. Describe the morphology, life cycle, pathogenesis and, laboratory diagnosis of plasmodium falciparum.

SHORT ESSAY **6X10= 60 Marks**

3. Opportunistic fungal infections
4. Mycetoma
5. Hydatid cyst
6. Enterobiasis
7. Rota virus
8. Balantidium coli

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Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination – APRIL/MAY 2015

[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. Write about definition, pathogenesis and laboratory investigation of DIC.
2. Write about definition, etiology, laboratory investigations of megaloblastic anaemia. Add a note on pernicious anaemia.

SHORT ESSAY **6X10= 60 Marks**

3. Haemopoiesis
4. PNH
5. Tests for G-6PD deficiency
6. Bone marrow examination
7. Cleaning of Glasswares.
8. HDN

Rajiv Gandhi University of Health Sciences

Second Year M.Sc. (MLT) Degree Examination – MAY 2015

[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. Enumarate transfusion reactions. How do you investigation a case of transfusion reaction.
2. Define hemapheresis. Discuss about the equipments and techniques.

SHORT ESSAY **6X10= 60 Marks**

3. Bombay blood group
4. Testing for transfusion transmitted diseases.
5. Quality assurance in blood banking.
6. Changes in the stored blood.
7. Stem cell transplantation.
8. Graft versus host diseases – transfusion related

Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - APRIL/MAY 2015

[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. Outline the complete metabolism, transport and clearance of bilirubin in our body. Explain jaundice in detail.

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

2. Renal Function Tests
3. What are tumor biomarkers? Explain laboratory evaluation of ALP, ACTH and calcitonin
4. Usefulness of placental hormones

Section B – Laboratory Management [50 marks]

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

5. Explain in detail electrophoresis.

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

6. Write a short note on automation and POCT
7. LJ charts and Westgard's Rules
8. Explain in brief carbon monoxide and lead toxicity

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - MAY 2015

[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. Diabetes mellitus- types, diagnosis, treatment and management.
2. Chemistry, RDA, Sources, functions, disorders and toxicity of Vitamin A and D

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

3. Lipoproteins
4. Write a note on gout
5. GSD
6. Explain beta oxidation. Add a note on ketone bodies
7. Explain photometry
8. Isoenzymes and its clinical significance with examples

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Rajiv Gandhi University of Health Sciences

II Year M.Sc. (MLT) Degree Examination - APRIL/MAY 2015

[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. Classify Vibrios of medical importance. Discuss the pathogenesis and laboratory diagnosis of a case of cholera. Add a note on its prevention.
2. List the antigen- antibody reactions. Discuss in detail the principle & applications of agglutination reactions.

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

3. Laboratory diagnosis of diphtheria
4. Standard tests for syphilis
5. Helicobacter pylori
6. Mechanism of autoimmunity
7. Prevention and control of hospital acquired infections
8. Bacterial vaginosis

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