Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (MLT) Degree Examination - MAR/APR 2017

Time: Three Hours **Max. Marks: 80 Marks**

Biochemistry – Paper II (RS-3 Scheme)

Q.P. CODE: 3156

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

LONG ESSAY (Any Two) **2 x 10 = 20 Marks**

1. Write the sources, RDA, chemistry, functions and deficiency manifestations of Vitamin C.
2. Explain Phenylalanine – Tyrosine metabolism. Add a note on the important products derived from tyrosine.
3. Discuss the various tests employed to detect the renal function.

SHORT ESSAY (Any Six) **6 x 5 = 30 Marks**

4. Types and grades of water used in a clinical laboratory
5. Biosynthesis of creatinine and its clinical significance
6. Anticoagulants and preservatives used in blood and urine collection
7. Diabetes mellitus – types, clinical manifestations and management
8. Principle and applications of Nephelometry and Turbidimetry
9. Secondary structure of proteins
10. Enzyme specificity
11. Composition and clinical significance of CSF analysis

SHORT ANWERS (Any Ten) **10 x 3 = 30 Marks**

12. Different types of solutions prepared in a laboratory
13. Osazones
14. Biologically important peptides
15. Active site of an enzyme
16. Differences between DNA and RNA
17. Pellagra
18. Invert sugar
19. Disorders associated with urea cycle
20. Urinometer
21. Pleural fluid
22. Preparation of protein free filtrate for quantitative estimations
23. Name the branched chain amino acids.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (MLT) Degree Examination - MAR/APR 2017

Time: Three Hours **Max. Marks: 80 Marks**

Microbiology – Paper II (RS-3 Scheme)
Q.P. CODE: 3157

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

LONG ESSAY (Any Two) **2 x 10 = 20 Marks**

1. Classify Mycobacteria. Describe in detail pathogenicity and laboratory diagnosis of Pulmonary Tuberculosis.
2. Enumerate the organisms causing Pyogenic infections. Describe the laboratory diagnosis of Staphylococcus aureus manifestations.
3. Describe the morphology, life cylce, pathogenicity and laboratory diagnosis of Ancylostoma duodenale.

SHORT ESSAY (Any Six) **6 x 5 = 30 Marks**

4. C – Reactive Protein
5. Pathogenicity and laboratory diagnosis of Neisseria gonorrhoea
6. Laboratory diagnosis of Anthrax
7. Virulence factors of Streptococcus pyogenes
8. Bacillary dysentery
9. Cryptosporidium
10. VDRL test
11. Lepromin test

SHORT ANWERS (Any Ten) **10 x 3 = 30 Marks**

12. Name any three organisms causing hospital-acquired infections.
13. Microfilaria
14. Quellung's reaction
15. Name three arthropods of medical importance.
16. Oxidase test
17. Pneumonic plague
18. Milk ring test
19. Draw a neat labeled diagram of E. histolytica.
20. Larva migrans
21. Erythrocytic schizogony
22. Concentration methods in stool examination
23. Scolex of Taenia solium

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – APRIL 2017

Time: Three Hours **Max. Marks: 80 Marks**

PATHOLOGY – II (RS - 3)

Q.P. CODE: 3158

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

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe cryostat and its method of action.
2. Describe osmotic fragility test.
3. Enumerate the various methods of estimating Haemoglobin. Describe any one in detail.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. Automatic tissue processor.
5. Special stains for carbohydrates.
6. Stem cells.
7. Method of estimating absolute eosinophil count.
8. Name different microtomes and describe rotatory microtome.
9. Platelet function tests.
10. Demonstration of LE cell.
11. Quality control of haematology laboratory.

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Microtome.
13. Special stains for lipids.
14. Microphotography and its applications.
15 Describe steps of leucopoiesis.
16. Red cell indices.
17. Plasma haptoglobin.
18. Euglobulin test.
19. Cytochemistry.
20. ICDS classification and coding.
21. Abnormal haemoglobin pigments.
22. Schilling's test.
23. RBC count.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (MLT) Degree Examination - SEP-2017

Time: Three Hours **Max. Marks: 80 Marks**

Biochemistry – Paper II (RS-3 Scheme)

Q.P. CODE: 3156

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

LONG ESSAY (Any Two) **2 x 10 = 20 Marks**

1. Explain the pathway of glycolysis. Add a note on its regulation and energetics.
2. Give a detailed account of classification of proteins.
3. Define Chromatography and Rf value. Explain the principle, procedure and applications of Thin Layer Chromatography.

SHORT ESSAY (Any Six) **6 x 5 = 30 Marks**

4. Classification of enzymes with two examples for each
5. Spectrophotometry – principle, instrumentation and applications
6. Preparation and importance of calibration curve
7. Structure and functions of tRNA
8. Oral glucose tolerance test
9. Absorption, transport and storage of vitamin B12
10. Transamination
11. Mucopolysaccharides

SHORT ANWERS (Any Ten) **10 x 3 = 30 Marks**

12. Lesch Nyhan syndrome
13. Normal chemical constituents of urine and their normal excretion values
14. Glycated HbA1c
15. Immobilized enzymes
16. MSUD
17. Buffer solutions and substrates
18. Mutarotation
19. Salting out method of protein precipitation
20. Beriberi
21. Differences between starch and glycogen
22. Peptide bond
23. Benedict's test

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (MLT) Degree Examination - SEP 2017

Time: Three Hours **Max. Marks: 80 Marks**

Microbiology – Paper II (RS-3 Scheme)

Q.P. CODE: 3157

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

LONG ESSAY (Any Two) **2 x 10 = 20 Marks**

1. Describe the morphology, culture characteristic, pathogenicity and laboratory diagnosis of Vibrio cholerae.
2. Mention the intestinal nematodes. Give an account of life cycle, pathogenicity and laboratory diagnosis of Ascaris lumbricoides.
3. Enumerate the bacteria causing meningitis. Describe the cultural characters and laboratory diagnosis of Meningococcal meningitis.

SHORT ESSAY (Any Six) **6 x 5 = 30 Marks**

4. Laboratory diagnosis of Filariasis
5. VDRL test
6. Botulism
7. Laboratory diagnosis of whooping cough
8. Nagler reaction
9. Enzymes and toxin produced by Staphylococcus aureus
10. Cysticercosis
11. Widal test

SHORT ANWERS (Any Ten) **10 x 3 = 30 Marks**

12. Oxidase test
13. Satellitism
14. Medusa head appearance
15. Castaneda's method of blood culture
16. Mantoux test
17. Casoni's test
18. Mycoplasma
19. Black water fever
20. Name three bile stained ova.
21. Name the concentration techniques for stool.
22. Infection produced by Klebsiella
23. Cryptosporidium

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (MLT) Degree Examination - SEP-2017

Time: Three Hours **Max. Marks: 80 Marks**

Pathology – Paper II (RS-3 Scheme)
Q.P. CODE: 3158

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

LONG ESSAY (Answer any Two) **2 x 10 = 20 Marks**

1. Describe the procedure for obtaining frozen section. Mention the indication for frozen section technique.
2. Laboratory investigation for hemolytic anemia. Discuss osmotic fragility test.
3. Classify bleeding disorders. Discuss the laboratory investigation of bleeding disorder.

SHORT ESSAY (Answer any Six) **6 x 5 = 30 Marks**

4. Cell block preparation
5. Packed cell volume
6. Tests for megaloblastic anemia
7. Myelopoiesis
8. Write the types of electron microscope and its applications.
9. Write the differences between intra and extra vascular hemolysis.
10. Mounting techniques
11. Romanowsky stains

SHORT ANWERS (Answer any Ten) **10 x 3 = 30 Marks**

12. Write the various methods of hemoglobin estimation.
13. Mention six Poikilocytosis and their significances.
14. Special stains for connective tissue
15. Name the different types of Hematoxylins.
16. Indications for bone marrow aspiration
17. Leuckhart's L pieces and its uses
18. Supravital stains
19. Morphology of Monocyte
20. Honing and stropping
21. Microphotography
22. Causes of eosinophilia
23. Name the clearing agents.

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