Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (MLT) Degree Examination - APRIL-2019

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. Renal function tests
2. Glycogen metabolism
3. Give a detailed account of chemistry, source, RDA, functions and deficiency disorders of Thiamine.

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

4. Spectrophotometry
5. Oral Glucose Tolerance Test (OGTT)
6. Catabolism of branched chain amino acids
7. RNA
8. Enzyme inhibition
9. Protein free filtrate
10. Digestion and absorption of carbohydrates
11. Transport of ammonia

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

12. Km value of an enzyme and its significance
13. Importance of buffer solution
14. Disaccharides
15. Normal levels of serum creatinine, urea and uric acid
16. Lactose
17. Xanthoproteic test
18. Scurvy
19. Benedict’s test
20. Coenzymes
21. End point reactions
22. Lesch Nyhan syndrome
23. Gout

Rajiv Gandhi University of Health Sciences, Karnataka

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II Year B.Sc. (MLT) Degree Examination - April-2019

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

Microbiology – II (RS3)

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. Enumerate the organisms causing meningitis. Describe the morphology cultivation, pathogenicity and laboratory diagnosis of Meningococcal meningitis.
2. Classify Mycobacteria. Describe in detail the pathogenicity and laboratory diagnosis of pulmonary tuberculosis.
3. Classify Cestodes. Give a detailed account of morphology, life cycle, pathogenicity and laboratory diagnosis of Echinococcus granulosus.

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

4. Laboratory diagnosis of Urinary Tract Infections
5. Blood Culture
6. Coagulase Test
7. Laboratory diagnosis of Gas gangrene
8. Prophylaxis for Diphtheria
9. Morphology and life cycle of Entamoeba histolytica
10. Life cycle of Plasmodium vivax
11. Laboratory diagnosis of Wuchereria bancrofti

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

12. Elek's gel precipitation test
13. Morphology of Trichomonas vaginalis
14. Oxidase test
15. NIH Swab
16. Milk ring test
17. VDRL Test
18. Name three Bacterial vaccines.
19. Name three Bile stained ova.
20. Name the etiological agent of Whooping cough. Add a note on its prophylaxis.
21. Phenyl Pyruvic Acid (PPA) test
22. Morphology of Pneumococcus
23. Eggs of Ascaris lumbricoides

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – APRIL-2019

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 haemoglobin electrophoresis.
2. Preparation and staining of blood films.
3. Mechanism of blood coagulation and fibrinolytic system.

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

4. Microtome knives and sharpening of knives.
5. Describe electron microscope.
6. Describe various anticoagulants used in haematology.
7. Sickling test.
8. Reticulocyte count.
9. Prothrombin time and partial thromboplastin time.
10. Test for autoimmune haemolytic anemia.
11. Application of computers in pathology laboratory.

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

12. LE cells.
13. Fluorescent microscope.
14. Formed elements of blood with diagram.
15. Special stains for lipids
16. Bleeding time and clotting time.
17. Test for FDP.
18. Quality control.
19. Normal counts of RBC, WBC and platelets.
20. Leuckart's Block.
21. Stains used in Leukaemias.
22. Honing and stropping.
23. What is regressive and progressive staining?

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (MLT) Degree Examination - SEP-2019

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

Biochemistry – Paper II (RS-3)

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 glycolysis pathway and its importance.
2. What are enzymes? Explain the various factors, which can affect an enzyme-catalyzed reaction.
3. Give a detailed account of chemistry, source, RDA, functions and deficiency disorders of Vitamin C.

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

4. Mucopolysaccharides
5. Functions of proteins
6. Urea cycle
7. Structure of DNA
8. Co-enzymes
9. Diabetes Mellitus
10. Partition chromatography
11. Calibration curve and its importance

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

12. Define normal, molar and percent solution.
13. Define accuracy and precision.
14. Mutarotation
15. Buffers
16. Phenyl Ketonuria
17. Anticoagulants used in blood collection
18. t-RNA
19. Pellagra
20. Iso electric pH
21. Denaturation of proteins
22. Pyridoxine
23. Indicators

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – OCT-2019

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

Microbiology – II (RS3)
Q.P. CODE: 3157

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. Classify Streptococci. Describe the morphology, cultivation, pathogenicity and the laboratory diagnosis of Streptococcus pyogenes.
2. Enumerate the bacteria causing zoonotic diseases. Describe the morphology, cultivation, pathogenicity and laboratory diagnosis of Bacillus anthracis.
3. Describe the morphology, life cycle and pathogenicity of Entamoeba histolytica. Write a note on extra intestinal amoebiasis.

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

4. Virulence factors of Staphylococcus aureus.
5. Toxigenicity testing of Corynebacterium diphtheriae.
6. Nagler's reaction.
7. Diarrhoeagenic Escherichia coli.
8. Concentration techniques for helminthic eggs.
9. Laboratory diagnosis of Kala-azar/Leishmaniasis.
10. Life cycle of Echinococcus granulosus.
11. Life cycle of Wuchereria bancrofti.

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

12. Bile solubility test.
13. Tetanospasmin.
14. Laboratory diagnosis of Actinomycosis.
15. Complications of gonorrhea.
16. Name any three selective medias used for Shigella.
17. Detection of carriers of enteric fever.
18. Define definitive host. Give two examples.
19. Describe the morphology of Giardia lamblia.
20. Erythrocytic schizogony.
21. Cysticercus cellulosae.
22. Eggs of Ascaris lumbricoides.
23. Loa loa.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. (M.L.T) Degree Examination – OCT-2019

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 museum technology.
2. Investigation of megaloblastic anemia.
3. Aspiration of bone marrow and its staining techniques.

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

4. Describe special stains for connective tissue.
5. Describe dark ground illumination microscope.
6. Haematocrit.
7. Determination of HBF.
8. Describe investigation of G6PD deficiency.
9. Estimation of serum iron.
10. Various mountants and mounting techniques.
11. Describe total White Blood Cell (WBC) count and platelet count.

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

12. List various instruments used in histopathology.
13. Mordant.
14. Leishman stain-preparation and its uses.
15 Method of section cutting.
16. Supravital stain.
17. Anticoagulants used in haematology.
18. Calculation of Red cell indices
19. Clot lysis test.
20. Describe neutrophil with diagram and its function.
21. Automatic slide stainer.
22. Special stains for fat.
23. Differential count.

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