Rajiv Gandhi University of Health Sciences, Karnataka

Second Year M.Sc. (MLT) Degree Examination - 16-Jul-2021

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

BIOCHEMISTRY – II

Paper - I (RS-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]

Answer All The Questions 10 X 10 = 100 Marks

1. Mention various laboratory analysis for gall stones and renal calculi. Add a note on cholecystitis. Mention significance of electrolytes.
2. Hormonal assay of thyroid gland. Significance of anti – TPO in thyroid abnormalities.
3. List the Cardiac markers. Explain the analytical measurement of any two cardiac markers.
4. Write a note on tumour markers and their clinical significance with examples.
5. Write about laboratory evaluation of Pancreatic Disease.

Section B – Laboratory Management [50 marks]

6. Types of automation, steps in automated analysis and total laboratory automation. Mention few POCT devices.
7. Principles and applications of electrophoresis. Add a note on agarose gel electrophoresis.
8. Explain the mechanism of drugs. Add a note on drugs of abuse.
9. Write about the evaluation and significance of routinely analysed Hormones in Laboratory.
10. Explain about Biological reference interval.

Second Year M.Sc. (MLT) Degree Examination - 19-Jul-2021

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

BIOCHEMISTRY – II

Paper – II - (RS-2)

Q.P. CODE: 9815

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

Answer All The Questions 10 X 10 = 100 Marks

1. Give a detailed account of the reactions of TCA cycle. Discuss the regulation, energetics and inhibitors of the cycle.
2. Write in detail about classification and clinical manifestations of Gout.
3. Discuss the purine synthesis. Give a detailed account of the biochemical abnormality, salient features, and treatment of Lesch-Nyhan syndrome.
4. Give the dietary sources and RDA for ascorbic acid. Discuss its biochemical functions and deficiency manifestations.
5. Describe the differential diagnosis and management of Diabetes Mellitus.
6. Define aminoaciduria. Discuss the classification, pathogenesis, symptoms and laboratory diagnosis of Aminoacidurias.
7. Give the characteristics of cancer cells. Discuss the predisposing factors of cancer and protooncogenes.

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8. Give the dietary sources, function and RDA of Iron. Explain the manifestation and treatment of Iron deficiency anaemia.

9. What are isoenzymes? Explain their characteristics, laboratory evaluation and the diagnostic significance.

10. What is atherosclerosis? Discuss the risk factors for atherosclerotic diseases. Add a note on methodological considerations of HDL and LDL cholesterol estimation.

Second Year M.Sc. (MLT) Degree Examination - 22-Jul-2021

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

MICROBIOLOGY – II
Systematic Bacteriology, Applied Microbiology and Immunology
PAPER-I (RS-2)
Q.P. CODE: 9816

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

Answer All The Questions 10 X 10 = 100 Marks

1. Enumerate the organism causing Meningitis. Describe the morphology, pathogenicity and laboratory diagnosis of Meningococcal meningitis.

2. Classify antigen antibody reaction. Explain in detail principle, types and applications of ELISA.

3. Enumerate the bacteria causing throat infection. Describe the pathogenicity and laboratory diagnosis of Streptococcus pyogenes.

4. Sample collection and laboratory diagnosis of urinary tract infection.

5. Describe the laboratory diagnosis of Gonorrhea.

6. Define and classify immunodeficiency disease. Write in detail about secondary immuno deficiency diseases.

7. Define autoimmunity. Discuss the mechanisms of autoimmunity with examples.

8. Discuss principle and applications of BACTEC.

9. Immunization schedule.

10. Discuss principle, types and utility of PCR.

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Second Year M.Sc. (MLT) Degree Examination - 26-Jul-2021

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

MICROBIOLOGY – II
Virology, Mycology and Parasitology
PAPER-II (RS-2)

Q.P. CODE: 9817

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

Answer All The Questions 10 X 10 = 100 Marks

1. Describe the morphology, life cycle, pathogenicity and the laboratory diagnosis of Entamoeba histolytica.
2. Describe the laboratory diagnosis of cryptococcosis.
3. Life cycle of Plasmodium Falciparum.
4. Enumerate the viruses causing Hepatitis. Discuss the morphology pathogenesis, laboratory diagnosis and prophylaxis of Hepatitis B virus.
5. Discuss the pathogenesis and laboratory diagnosis of Herpes simplex virus.
6. Discuss the causative agents and laboratory diagnosis of Keratomycosis.
7. Describe the laboratory diagnosis of Kala-azar.
8. Explain the morphology, pathogenicity, laboratory diagnosis and prophylaxis of Rabies virus.
9. Define and list Dimorphic fungi. Add note on Histoplasmosis.
10. Describe the life cycle and laboratory diagnosis Strongyloidiasis.

Second Year M.Sc. (MLT) Degree Examination - 28-Jul-2021

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

HAEMATOLOGY AND BLOOD TRANSFUSION – II
Paper – I (RS-2)

Q.P. CODE: 9818

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

Answer All The Questions 10 X 10 = 100 Marks

1. What is packed cell volume? Enumerate methods of detection of PCV.
2. Von willebrand’s disease.
3. Define Thrombocytosis. Enumerate the conditions causing Thrombocytosis. Add a note on essential Thrombocythemia.
4. Normal hemostasis.
5. Platelet function disorders.
6. Investigations for coagulation disorders.
7. Antiphospholipid antibody syndrome.
8. Investigations for hemorrhagic disorders.
9. Disseminated intravascular coagulation pathogenesis and lab diagnosis.

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10. Flow cytometry principle and clinical application.

Second Year M.Sc. (MLT) Degree Examination - 30-Jul-2021

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

HAEMATOLOGY AND BLOOD TRANSFUSION – II
Paper – II (RS-2)

Q.P. CODE: 9819

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

Answer All The Questions 10 X 10 = 100 Marks

1. What are the sites selected for collection of blood? What is the procedure for collection of blood?
2. What is Apheresis? Discuss storage of blood components.
3. Anticoagulants used in blood bank.
4. Enumerate the blood group systems? Write the importance of Rh system.
5. Indications and contraindications of blood transfusion. Enumerate different types of blood transfusion.
6. What are the blood group antibodies? Write a note on gel card method.
7. Transfusion related graft versus host reaction.
8. Quality assurance in blood banking.
9. Discuss cross matching in detail.
10. Organisation of Blood bank.