



**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**  
(A DEEMED TO BE UNIVERSITY)

**M.Sc. Medical Laboratory Technology (M.Sc. MLT)**

Second Year Semester – III, September 2021 Examination

Time: 3.00 Hrs.

[Max. Marks: 100]

Paper -II

**Metabolism and Metabolic Disorders**

Q.P. Code: M3422

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**Long Essay**

**2x20 = 40 Marks**

1. Define Glycogenesis and Glycogenolysis. Write the reactions of Glycogenesis and Glycogenolysis. Add a note on its regulation. 4+5+5+5
2. Define  $\beta$ -oxidation. Explain the  $\beta$ - oxidation of Palmitic acid. Add a note on its energetics.

**Short Essay**

**6x10 = 60 Marks**

3. Name the compounds derived from Tryptophan. Explain how these compounds are synthesized from it. Add a note on inborn errors of metabolism associated with this.(2+5+3)
4. Write the WHO classification of Diabetes Mellitus. Explain the laboratory investigations in the diagnosis of diabetes mellitus?5+5
5. Describe the steps of urea cycle. Add a note on disorders of urea cycle. 7+3
6. Explain degradation of cholesterol. Give the Normal Biological Reference range for serum levels of Total cholesterol, Triglycerides, LDL and HDL. Add a note on cholelithiasis.5+4+1
7. List the types of RNA and write their functions. Describe the Structure of t RNA with neat labeled diagram.4+6
8. Write the steps involved in the denovo synthesis of purine nucleotides. add a note on Gout.

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