



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

M.Sc. Molecular Biology & Human Genetics (Semester-I)

September 2023 Examination

[Max. Marks :100]

Time : 3 Hrs.

Biochemistry

Q.P Code : M1540

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

LONG ESSAY

2 X 20 = 40 Marks

1. Classify carbohydrates with suitable examples. Describe the composition and function of five mucopolysaccharides. Describe the different types of isomers of monosaccharides with suitable examples(7+5+8).
2. Define Electrophoresis and give its principle. List the different types. List the applications and limitations of each type of electrophoresis.(5+5+10)

SHORT ESSAY

6X 10 = 60 Marks

3. Define Enzymes. Classify enzymes giving two examples for each class and the reaction catalyzed by them. (1+9)
4. Define Proteins. Classify them with suitable examples
5. Explain Protein Energy Malnutrition (PEM) classify it and explain the causes, clinical features and biochemical findings in PEM. What is Nitrogen Balance? Classify and explain the factors affecting Nitrogen balance (7+1+2)
6. Mention the types of RNA and write the functions. Describe the structure of tRNA with a neat labelled diagram. Mention the unusual bases in tRNA.(5+3+2)
7. Define Buffers. List the various blood buffers. Derive Henderson Hasselbach equation and give its applications.(1+2+7)
8. Mention sources, Recommended Daily Allowance of Folic acid. Explain the role of Folic acid in one carbon metabolism. Add a note on deficiency manifestations of Folic acid. (1+1+5+3)

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