

University of Ruhuna- Faculty of Technology
Bachelor of Biosystems Technology Honours Degree
Level 1 (Semester II) Examination, November/December 2023
Academic year 2021/2022

Course Unit: BST 1242 Basic Biochemistry (Theory)
Duration: One and Half Hours (1.5 h)

Instructions

Answer All Three (03) Questions.

Question 01

- A. State **Four (04)** major functions of lipids. (8 Marks)
- B. Distinguish between Hydrolysable and Non-hydrolysable Lipids. (4 Marks)
- C. Differentiate between Cis and Trans fatty acids. (4 Marks)
- D. Mention **Three (03)** advantages of fats over polysaccharides as a storage material. (6 Marks)
- E. What do you understand by lipid-wax? (3 Marks)

Question 02

- A. Identify the suitable RNA type according to the function given in below table. (6 Marks)

Type of RNA	Function
	Translate the information in mRNA into a specific sequence of amino acids
	Carrying information for the synthesis of a protein from nucleus to cytoplasm
	Synthesis of proteins

- B. Identify and mention the correct term. (4 Marks)
- Both DNA and RNA contain two major purine bases i. _____ and ii. _____.
 - The pyrimidine: iii. _____ in DNA is replaced by the pyrimidine iv. _____ in RNA
- C. Briefly discuss five functions of amino acids. (10 Marks)
- D. What are the types of amino acids based on essentiality? Give at least one example for each type. (5 Marks)

Question 03

- A. What are the significant differences among the polysaccharides?? (4 Marks)
- B. Briefly explain what happens during the formation of a glycosidic bond. (6 Marks)
- C. Name Five (05) important commercial products of cellulose. (5 Marks)
- D. Briefly explain about the lactose intolerance. (10 Marks)

Type of RNA	Function
mRNA	Carries the genetic information from DNA to the ribosome for protein synthesis
tRNA	Transfers amino acids to the ribosome during protein synthesis
rRNA	Structural component of ribosomes

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