



Department of Genetic Engineering and Biotechnology
Faculty of Health and Life Sciences
B. Sc. (Hons.) in Genetic Engineering and Biotechnology
Final Examination Fall 2025

Course Code: 0512-1305
Level and Term: L-1, T-3
Time: 02 Hours

Section: 251 (A+B)

Course Title: Animal and Human Physiology
Course Teacher Initials: KMH + DSR
Total Marks: 40

Splitting any answer is strictly prohibited

		Marks
1. (a) Compare osmoregulation in aquatic and marine environments.	[CLO1, PLO2, C4]	4.0
(b) Define digestion. Illustrate the human digestive system with a labeled diagram.	[CLO3, PLO2, C2]	4.0
2. (a) Briefly discuss the types and functions of carbohydrase, protease, lipase, and nuclease enzymes.	[CLO5, PLO2, C6]	4.0
(b) Explain the physiology of carbohydrate digestion and absorption.	[CLO1, PLO2, C2]	4.0
3. (a) Illustrate the journey of proteins from digestion to metabolism.	[CLO2, PLO2, C2]	4.0
(b) Briefly discuss the roles and functions of sex hormones in males and females.	[CLO3, PLO2, C6]	4.0
4. (a) Compare and contrast the major endocrine and exocrine glands in humans.	[CLO1, PLO2, C5]	4.0
(b) List the hormones secreted by the hypothalamus & the anterior and posterior pituitary glands, and mention their major functions.	[CLO3, PLO2, C1]	4.0
5. (a) Mention the main components of nervous system. Draw and label a neuron.	[CLO2, PLO2, C3]	4.0
(b) Compare the nervous system and the endocrine system with respect to their modes of communication with target cells.	[CLO2, PLO2, C2]	4.0