



VIT
Vellore Institute of Technology
(Approved to be University under section 3 of UGC Act, 1956)

SCHOOL OF BIO SCIENCES AND TECHNOLOGY
CONTINUOUS ASSESSMENT TEST -II
WINTER SEMESTER 2024-2025

Programme Name & Branch : M.Sc. (Integrated) Biotechnology
Course Code : TBIT205L
Course Name : Human Anatomy and Physiology
Slot : C1+TC1
Faculty Name(s) : Dr. Krishna Rao Eswar N
Class Number(s) : VL2024250502331
Date of Examination : 18/03/2025
Exam Duration : 90 minutes Maximum Marks: 50

General instruction(s): Photocopies of lecture slides **NOT ALLOWED**. Answer all the questions with a neat diagram and label

Q. No	Question	Marks	(CO)	(BL)
1.	Compare and contrast the absorption mechanisms of carbohydrates, proteins, and lipids throughout the digestive tract, analysing how each segment is optimized for specific macromolecule breakdown. Discuss how these digestive processes are coordinated and regulated.	10	3	4
2.	Suppose a water-soluble hormone (insulin) is injected into a person suffering a lack of it. Describe the mode of transfer and mechanism of action.	10	4	3
3.	(a) Suppose a patient's urine may contain protein and biomolecules due to various underlying conditions; describe the reason behind it. (5 marks) (b) Neatly describe the structure and function of the basic unit of the renal system and its various types. (5 marks)	10	3	4
4.	Suppose a patient experiences a severe infection in the gallbladder and subsequently undergoes surgical removal of the organ, describe the consequences for digestion and transportation of effected biomolecule.	10	3	4
5.	The pituitary gland, known as the "master gland," is essential for the regulation of numerous physiological processes in animals through the secretion of its diverse hormones, each of which targets specific sites within the body. Could you highlight them?	10	4	3
