



Department of Genetic Engineering and Biotechnology
Faculty of Health and Life Sciences
B. Sc. (Hons.) in Genetic Engineering and Biotechnology
Final Examination Spring 2026

Course Code: 0512-1305

Level and Term: L-1, T-3

Time: 2 Hours

Section: 252 (A+B)

Course Title: Animal and Human Physiology

Course Teacher Initials: KMH & AR

Total Marks: 40

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| 1. a) Define the digestive system. Enumerate the <u>major organs</u> of the human digestive system and describe <u>their respective functions</u> . | [CLO3, PLO1, C1] 4.0 |
| b) <u>Classify</u> digestive enzymes with suitable examples. Discuss the biotechnological applications of digestive enzymes. | [CLO1, PLO7, C2] 4.0 |
| 2. a) Illustrate the processes of carbohydrate digestion and absorption in mammals. | [CLO1, PLO1, C3] 4.5 |
| b) Enlist the key enzymes involved in fat digestion. Explain the role of bile in fat digestion. | [CLO3, PLO2, C1] 3.5 |
| 3. a) Categorize the physiology of the male and female reproductive systems. Illustrate, with a diagram, the hormonal control in males. | [CLO2, PLO1, C4] 4.5 |
| b) Explain the physiology of puberty in males and females. List the factors affecting the onset of puberty. | [CLO4, PLO1, C2] 3.5 |
| 4. a) Enlist the major endocrine and exocrine glands in humans, providing suitable examples. | [CLO1, PLO2, C4] 4.0 |
| b) Discuss the sex hormones in human males and females, and state their respective functions. | [CLO1, PLO1, C6] 4.0 |
| 5. a) Briefly discuss the <u>central</u> and <u>peripheral</u> nervous systems in humans. | [CLO5, PLO1, C6] 5.0 |
| b) <u>Write a short note on "neuron"</u> . | [CLO1, PLO2, C5] 3.0 |