

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM – SEMESTER – 1 EXAMINATION – SUMMER-2025**

**Subject Code:BP101TP**

**Date: 17-06-2025**

**Subject Name: Human Anatomy and Physiology I**

**Time: 02:30 PM TO 05:30 PM**

**Total Marks: 80**

**Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|-------------|---|-----------|
| <b>Q.1</b>  | (a) Classify epithelial tissue. Explain simple epithelial tissue in detail.   | <b>06</b> |
|             | (b) Define and calculate cardiac output. Explain the factors affecting it.  | <b>05</b> |
|             | (c) Draw a neat and clean labeled structure of eye.   | <b>05</b> |
| <b>Q.2</b>  | (a) Explain mechanism of blood clotting.  | <b>06</b> |
|             | (b) Discuss the functions of skin.  | <b>05</b> |
|             | (c) Differentiate Sympathetic and Parasympathetic system.   | <b>05</b> |
| <b>Q.3</b>  | (a) Explain structure of synovial joint with diagram. Discuss types of synovial joint.  | <b>06</b> |
|             | (b) Describe physiology of hearing in detail.   | <b>05</b> |
|             | (c) Draw neat and clean labeled diagram of cell.  | <b>05</b> |
| <b>Q.4</b>  | (a) Define blood pressure. Enlist types of blood pressure and explain the methods of BP measurements.                           | <b>06</b> |
|             | (b) Differentiate skeletal, smooth and cardiac muscular tissue.   | <b>05</b> |
|             | (c) Explain composition, formation and functions of lymph.  | <b>05</b> |
| <b>Q.5</b>  | (a) Explain different transport mechanisms across the cell membrane.  | <b>06</b> |
|             | (b) Describe various types of WBCs.   | <b>05</b> |
|             | (c) Draw a neat and clean labeled diagram of heart.   | <b>05</b> |
| <b>Q. 6</b> | (a) Enlist types of cranial nerves with their location and functions.   | <b>06</b> |
|             | (b) Describe structure and composition of bone and write functions of skeleton.   | <b>05</b> |
|             | (c) Outline the process of formation of RBCs.   | <b>05</b> |
| <b>Q.7</b>  | (a) Draw labeled diagram of neuromuscular junction and Discuss physiology of muscle contraction.                                | <b>06</b> |
|             | (b) Write a note on a blood group and its significance.   | <b>05</b> |
|             | (c) Explain the following terms: 1) Cardiac cycle 2) Homeostasis 3) Anemia 4) Axial and Appendicular skeleton 5) Cell junctions | <b>05</b> |

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