

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 2 EXAMINATION – SUMMER-2025

Subject Code:BP201TP**Date: 17-06-2025****Subject Name: Human Anatomy and Physiology II****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

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

- Q.1** (a) Explain the structure and types of neurons. **06**
 (b) Write a note on generation and propagation of action potential in the nervous system. **05**
 (c) Explain the anatomy of Meninges. Write functions of cerebrospinal fluid. **05**
- Q.2** (a) Draw a labeled diagram of the digestive system. Describe the basic processes performed by the digestive system. **06**
 (b) Describe the structure and function of the layers that form the wall of the gastrointestinal tract. **05**
 (c) Explain the followings : (i) Deglutition (ii) Mastication (iii) Peritoneum **05**
 (iv) GERD (v) Chief cells
- Q.3** (a) Explain structural components of an alveolus in detail with labeled diagram. **06**
 (b) Write a note on resuscitation methods. **05**
 (c) Explain how the nervous system controls breathing. **05**
- Q.4** (a) Describe the filtration membrane. Discuss the pressures that promote and oppose glomerular filtration. **06**
 (b) Explain the actions and control of thyroid hormones. **05**
 (c) Write a note on the hormones secreted from zona fasciculata of adrenal cortex. **05**
- Q.5** (a) Write a note on micturition reflex. Explain the role of kidneys in acid base balance. **06**
 (b) Describe the location, histology, hormone, and functions of the parathyroid glands. **05**
 (c) Write about structure and functions of prostate and testis. **05**
- Q. 6** (a) Classify hormones. Explain the mechanism of hormone action. **06**
 (b) Explain the process of protein synthesis. **05**
 (c) Write the anatomy and functions of uterus. **05**
- Q.7** (a) Explain the followings: (i) Cushing's syndrome (ii) Graves' disease **06**
 (iii) Pheochromocytomas (iv) Glomerulonephritis
 (b) Write a note on menstruation. **05**
 (c) Write the functions of progesterone and estrogen. **05**