

GUJARAT TECHNOLOGICAL UNIVERSITY
Pharm. D. - YEAR-I • EXAMINATION – WINTER 2023

Subject Code: 818801**Date: 25/01/2024****Subject Name: Human Anatomy and Physiology****Time: 10:30 AM to 1:30 PM****Total Marks: 70****Instructions:**

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

- | | | |
|------------|--|-----------|
| Q.1 | (a) Draw a labeled diagram of human digestive system. Explain digestion and absorption of nutrients along the GI tract. | 06 |
| | (b) Classify nervous system. Write structure and functions of cerebellum. | 04 |
| | (c) Write physiological effects and disorders of adrenal cortex hormones. | 04 |
| Q.2 | (a) Classify joints. Write a note on synovial joints. | 06 |
| | (b) Enumerates endocrine glands and their hormones. Discuss the role of insulin in carbohydrate, protein and fat metabolism. | 04 |
| | (c) Explain internal structure and functions of kidney. | 04 |
| Q.3 | (a) Describe physiology of skeletal muscle contraction with suitable diagram. | 06 |
| | (b) Write a note on drug abuse in athletes. | 04 |
| | (c) Explain in detail functions of hypothalamus. | 04 |
| Q.4 | (a) Discuss exercise induced changes in cardiovascular and respiratory functions. | 06 |
| | (b) Describe components of monosynaptic reflex arc with a labeled diagram. | 04 |
| | (c) Explain followings (Any Five); | 04 |
| | i) Sagittal plane ii) Asthma iii) Rheumatoid Arthritis | |
| | iv) Atherosclerosis v) Asphyxia vi) Congestive Heart Failure | |
| Q.5 | (a) Discuss physiology of hearing with a labeled diagram. Write significance of ear in balance and equilibrium. | 06 |
| | (b) Explain the role of sex hormones in maintaining menstrual cycle. | 04 |
| | (c) Write physiological mechanisms of acid-base balance in the body. | 04 |
| Q.6 | (a) Write a note on spermatogenesis. Explain briefly the functions of testosterone. | 06 |
| | (b) Draw a labeled diagram of respiratory system. Explain transport of gases. | 04 |
| | (c) Define blood pressure? Explain various mechanisms involved in blood pressure regulations. | 04 |
| Q.7 | (a) Explain haemopoiesis with suitable diagram. | 06 |
| | (b) Describe structure and functions of spleen. | 04 |
| | (c) Write a note on physiology of gustation. | 04 |
