

**CENTRE FOR DISTANCE AND ONLINE EDUCATION  
SRI SRI UNIVERSITY, CUTTACK**

**MASTER OF ARTS (YOGA)**

**TUTOR MARKED ASSIGNMENT**

**Course Code: MSY-SCT-104**

**Course Name: Human Anatomy & Physiology**

**Semester: 1st**

**Academic Year: 2025-26**

**Session: August 2025**

**Total Marks: 100**

**A. Answer any eight questions (essay type). Answer in about 350-500 words each.**

(10 X 8 = 80)

1. Describe the architecture of the human cell and elaborate on how major organelles—such as mitochondria, ribosomes, and the endoplasmic reticulum—contribute to overall cellular functioning.
2. Discuss the organization and physiological roles of the lymphatic system with special focus on the spleen. Explain how this system supports immune defense and detoxification processes.
3. Examine the structure of the musculoskeletal system and analyze how an understanding of bones and muscles enhances safe and efficient performance of yoga asanas.
4. Define homeostasis and explain how it sustains internal balance within the human body. Illustrate how this principle aligns with practices and habits encouraged in a yogic lifestyle.
5. Provide a detailed account of the respiratory system, outlining its anatomical components and the mechanism of respiration. Comment on the physiological and yogic importance of breath control (pranayama).
6. Enumerate various body tissues and describe their functions with appropriate examples demonstrating their roles in maintaining normal physiology.
7. Discuss the different categories of joints found in the human body. Explain how awareness of joint mechanics can help minimize injury risk during yoga practice.
8. Compare the characteristics and functional differences between skeletal (voluntary), smooth (involuntary), and cardiac muscles. Explain how these muscle types participate in asanas, pranayama, and meditative practices.
9. Explain the anatomy of the heart and the functioning of the circulatory system. Highlight how consistent yogic practices contribute to better cardiovascular health.
10. Present an overview of prevalent disorders affecting the musculoskeletal and respiratory systems—such as scoliosis, arthritis, asthma, and bronchitis—and discuss how yoga can support their management.

**B. Write short notes on any four. Answer in about 150-200 words each.**

(5 X 4 = 20)

1. Anatomical planes and basic directional terminology.
2. Metabolism and its importance in sustaining bodily functions.
3. Structure and physiological role of alveoli in gas exchange.
4. Contribution of the diaphragm to the breathing mechanism.
5. Functions of lymph nodes in immune surveillance.
6. Classification of bones based on structure and function.