

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Pharm. - SEMESTER – I • EXAMINATION – WINTER - 2023**

**Subject Code: BP101TP****Date: 17/01/2024****Subject Name: Human Anatomy and Physiology I****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 following diseases: (a) Cardiac arrhythmias (b) Hypertension and (c) Glaucoma. **06**
- (b) Write a short note on ECG. **05**
- (c) Explain physiology of muscle contraction. **05**
- Q.2** (a) Explain the anatomy of the heart with labeled schematic diagram. **06**
- (b) What is Blood Pressure? Discuss its significance and methods of measurement. **05**
- (c) Differentiate: Skeletal and cardiac muscles. **05**
- Q.3** (a) Explain the process of “Cell division” **06**
- (b) Define anemia? Discuss the different types of anemia. **05**
- (c) Write a note on Nervous tissue. **05**
- Q.4** (a) Discuss different types of Synovial joints with appropriate examples for each type. **06**
- (b) Write difference between parasympathetic and sympathetic system. **05**
- (c) Explain cardiac cycle. **05**
- Q.5** (a) Define Homeostasis. Explain negative feedback system by giving suitable example. **06**
- (b) Explain the process of erythropoiesis and role of erythropoietin. **05**
- (c) Write a note on transport mechanisms involved across the cell membrane with suitable examples. **05**
- Q. 6** (a) Draw a labeled diagram of eye-ball. **06**
- (b) Write composition and function of Lymph. **05**
- (c) Differentiate epithelial tissues and connective tissues. Describe in detail the connective tissues. **05**
- Q.7** (a) Write in detail physiology of hearing. **06**
- (b) Enumerate various clotting factors and explain in detail mechanism of coagulation. **05**
- (c) Explain anatomy and physiology of spleen. **05**

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