

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm. – SEMESTER – I • EXAMINATION – SUMMER 2013**

**Subject Code: 2210004****Date: 17-05-2013****Subject Name: Human Anatomy Physiology****Time: 02.30 pm - 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) Draw neat and labeled diagram of cell. Write a note on mediated transport mechanism.                                  | <b>06</b> |
|                       | (b) What is homeostasis? Explain negative feedback system with suitable example.  | <b>05</b> |
|                       | (c) Write a note on cell cycle.   | <b>05</b> |
| <b>Q.2</b>            | (a) Explain physiology of muscle contraction.   | <b>06</b> |
|                       | (b) Classify joints. Write a note on synovial joint.  | <b>05</b> |
|                       | (c) Enumerate bones of skull. Write a note on arthritis.  | <b>05</b> |
| <b>Q.3</b>            | (a) Enlist clotting factors and explain clotting mechanism in detail.   | <b>06</b> |
|                       | (b) What is blood? Enumerate various components and function of blood.  | <b>05</b> |
|                       | (c) Define tissue. Classify them with note on nervous tissue.   | <b>05</b> |
| <b>Q.4</b>            | (a) Define blood pressure. Enumerate methods for blood pressure measurement and write a note on renin angiotensin system. | <b>06</b> |
|                       | (b) Explain cardiac cycle in detail.  | <b>05</b> |
|                       | (c) Explain following terms:  | <b>05</b> |
|                       | 1. Cardiac output 02  |           |
| 2. Arrhythmia 02      |   |           |
| 3. Angina pectoris 01 |   |           |
| <b>Q.5</b>            | (a) Draw neat and labeled diagram of digestive system. Enlist various functions of saliva.                                | <b>06</b> |
|                       | (b) Define immunity. Differentiate active and passive immunity.   | <b>05</b> |
|                       | (c) Explain anatomy and physiology of spleen.   | <b>05</b> |
| <b>Q.6</b>            | (a) Explain erythropoiesis process in detail.   | <b>06</b> |
|                       | (b) Write a note on blood group with its significance.  | <b>05</b> |
|                       | (c) Explain functions of Golgi apparatus and mitochondria.  | <b>05</b> |
| <b>Q.7</b>            | (a) Write a note on liver.  | <b>06</b> |
|                       | (b) Draw neat and labeled diagram of heart.   | <b>05</b> |
|                       | (c) Give functions of   | <b>05</b> |
| 1. Pancreas           |   |           |
| 2. Stomach            |   |           |

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