

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BPHARM – SEMESTER – I • EXAMINATION – WINTER 2012**

**Subject code: 2210004****Date: 23-01-2013****Subject Name: Human Anatomy Physiology and Health Education - I****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 the labeled diagram of a cell. Discuss nucleus in detail.                                     | <b>06</b> |
|             | (b) | Describe structure of cell membrane with appropriate diagram, and give functions of cell membrane. | <b>05</b> |
|             | (c) | Write in brief about trans-cellular fluids.  | <b>05</b> |
| <b>Q.2</b>  | (a) | What is tissue? Classify them. Write functions of Muscular tissue.                                 | <b>06</b> |
|             | (b) | Discuss characteristic and function of epithelial tissue.  | <b>05</b> |
|             | (c) | Write short note on Vertebral Column.  | <b>05</b> |
| <b>Q.3</b>  | (a) | Classify WBCs and write about its functions.   | <b>06</b> |
|             | (b) | Write about functions of blood.  | <b>05</b> |
|             | (c) | Describe composition and function of lymph.  | <b>05</b> |
| <b>Q.4</b>  | (a) | Describe essential structure of heart. Ensure your answer includes chambers, valves and vessels.   | <b>06</b> |
|             | (b) | Explain regulation of blood pressure.  | <b>05</b> |
|             | (c) | Explain in brief about coronary circulation.   | <b>05</b> |
| <b>Q.5</b>  | (a) | Write a note on salivary glands.   | <b>06</b> |
|             | (b) | Discuss the digestion and absorption of nutrients from small intestine.                            | <b>05</b> |
|             | (c) | Write short note on teeth.   | <b>05</b> |
| <b>Q. 6</b> | (a) | Discuss physiological variations and regulation of blood volume.                                   | <b>06</b> |
|             | (b) | Write short note on spleen.  | <b>05</b> |
|             | (c) | Write about various types of movement at joints.   | <b>05</b> |
| <b>Q. 7</b> | (a) | Explain following diseases in brief.   | <b>06</b> |
|             |     | I. Hypertension  |           |
|             |     | II. Anemia   |           |
|             |     | III. Arthritis   |           |
|             | (b) | Comment on, “I can contribute for prevention of Thalassemia”.                                      | <b>05</b> |
|             | (c) | Describe phases and regulation of gastric secretion.   | <b>05</b> |

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