

GUJARAT TECHNOLOGICAL UNIVERSITY**B.Pharm – SEMESTER I– • EXAMINATION – WINTER-2015****Subject Code: 2210004****Date: 05/ 01/2016****Subject Name: Human Anatomy and Physiology****Time: 10.30 AM to 01.30 P.M****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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| Q.1 | (a) | Explain the process of “Cell division” | 06 |
| | (b) | Differentiate the following: Bone and Cartilage. | 05 |
| | (c) | Explain physiology of muscle contraction. | 05 |
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| Q.2 | (a) | Classify transport mechanism across cell membrane. Explain each of them with suitable examples. | 06 |
| | (b) | Describe the role of T-lymphocyte in immunity | 05 |
| | (c) | Explain functions of Golgi apparatus and mitochondria. | 05 |
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| Q.3 | (a) | Explain following diseases: (a) Cardiac arrhythmias (b) Hypertension(c). Angina Pectoris (d)Atherosclerosis | 06 |
| | (b) | Write a short note on ECG | 05 |
| | (c) | Define blood pressure. Write a note on renin angiotensin system. | 05 |
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| Q.4 | (a) | Discuss the digestion and absorption of nutrients from small intestine | 06 |
| | (b) | Classify Epithelial Tissue? Add a note on Simple Epithelium. | 05 |
| | (c) | Write a note on salivary glands. | 05 |
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| Q.5 | (a) | Write composition, function and circulation of Lymph. | 06 |
| | (b) | Explain anatomy and physiology of spleen. | 05 |
| | (c) | Describe the structure and functions of Lymph Node. | 05 |
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| Q. 6 | (a) | Explain erythropoiesis process and role of erythropoietin | 06 |
| | (b) | Write a note on blood group with it significance | 05 |
| | (c) | Define anemia? Discuss the different types of anemia | 05 |
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| Q.7 | (a) | Classify joints. Write a note on synovial joint. | 06 |
| | (b) | Differentiate: Skeletal and cardiac muscles. | 05 |
| | (c) | Explain the structure and functions of Cell membrane | 05 |
