

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I • EXAMINATION – WINTER 2013

Subject Code: 210007

Date: 06-01-2014

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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|-------------|-----|--|-----------|
| Q.1 | (a) | Define cardiac output and stroke volume. Explain factors affecting Cardiac output. | 06 |
| | (b) | Write a note on Reticulo-endothelial system. | 05 |
| | (c) | Draw a neat and labeled diagram of human cell. | 05 |
| Q.2 | (a) | Enumerate clotting factors and explain the clotting process in detail. | 06 |
| | (b) | Define blood pressure. Explain the role of rennin- angiotensin system in regulation of blood pressure | 05 |
| | (c) | What is feedback system? Write importance and operation of feedback system in regulation of internal environment of body. | 05 |
| Q.3 | (a) | Classify transport mechanism across cell membrane. Explain each of them with suitable examples. | 06 |
| | (b) | Write importance of plasma proteins. | 05 |
| | (c) | Describe mechanism of protein synthesis by cell organelles. | 05 |
| Q.4 | (a) | Classify tissues. Draw a labeled diagram of neuron. | 06 |
| | (b) | What is Anemia? Write briefly about various types of Anemia. | 05 |
| | (c) | Explain digestion of carbohydrate and protein at various parts of digestive system. | 05 |
| Q.5 | (a) | Describe composition, formation and circulation of lymph. | 06 |
| | (b) | Write a short note on ECG. | 05 |
| | (c) | Explain sliding filament mechanism with reference to muscle contraction and relaxation | 05 |
| Q. 6 | (a) | Explain following diseases: Angina, Osteoporosis, Ulcer | 06 |
| | (b) | Write a note on differential W.B.C. | 05 |
| | (c) | Give detailed structure of Neuromuscular junction. Briefly describe muscle action potential transmission at this junction. | 05 |
| Q.7 | (a) | Explain the regulation of gastric juice secretion. | 06 |
| | (b) | Differentiate the following:
i. Cardiac muscle and Smooth muscle
ii. Innate and Acquired immunity | 05 |
| | (c) | Describe structure of Synovial joints. Write importance of Synovial fluid. | 05 |
