

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph SEM-I Examination- Jan.-2012

Subject code: 210007

Date: 02/01/2012

Subject Name: Human Anatomy Physiology and Health Education-I

Time: 10.30 am-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.**

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|-------------|-----|---|-----------|
| Q.1 | (a) | What is Anemia? Classify Anemia. Write in detail about Sickle cell Anemia. | 06 |
| | (b) | Write in detail about the different transport mechanisms across cell membrane with suitable examples. | 05 |
| | (c) | Explain the physiology of Muscle contraction. | 05 |
| Q.2 | (a) | Enlist different types of Joints in Human body. Write in brief about different types of Arthritis. | 06 |
| | (b) | Differentiate between Cell mediated and Humoral Immunity | 05 |
| | (c) | Discuss the Renin Angiotensin System. | 05 |
| Q.3 | (a) | Write in brief about Platelets. Explain in detail the mechanism of blood coagulation. | 06 |
| | (b) | Discuss in brief the composition and formation of Lymph. Explain the significance of Spleen. | 05 |
| | (c) | Explain the following (any 5) : 1. Homeostasis 2. Osteoclasts 3. Clotting Time 4. Thalassemia 5. Tachycardia 6. Antigen | 05 |
| Q.4 | (a) | Describe in detail Protein synthesis with suitable diagrams | 06 |
| | (b) | Classify muscular tissue on the basis of histology. Compare and differentiate between these different types of muscles. | 05 |
| | (c) | “Mitochondria is the powerhouse of the cell.” Comment. | 05 |
| Q.5 | (a) | Describe the process of Hemopoiesis. Describe the functions and fate of RBCs. | 06 |
| | (b) | Explain in detail the process of Digestion. | 05 |
| | (c) | Discuss the Anatomy and functions of Liver. | 05 |
| Q. 6 | (a) | Discuss the Cardiac cycle with help of suitable diagrams | 06 |
| | (b) | Write a note on Blood Groups. | 05 |
| | (c) | What is Blood Pressure. Discuss its significance and methods of measurement. | 05 |
| Q.7 | (a) | Explain the following terms : 1. Cardiac Output 2. Angina Pectoris 3. Arrhythmia | 06 |
| | (b) | Write a note on ECG. | 05 |
| | (c) | Classify connective tissue. Write in detail about Cartilage. | 05 |
