

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM. - SEMESTER-I • EXAMINATION – WINTER -2021

Subject Code: BP101TP**Date:21/04/2022****Subject Name: HUMAN ANATOMY AND PHYSIOLOGY-I****Time:10:30am to 01:30pm****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 different phases of cell division with appropriate diagram. | 06 |
| | (b) Write composition and functions of blood. | 05 |
| | (c) Write a note on blood grouping and its significance. | 05 |
| Q.2 | (a) Explain intracellular signaling pathway. | 06 |
| | (b) Give detailed account on connective tissues. | 05 |
| | (c) Define the following terms: | 05 |
| | i) Cataract ii) Myocardial infarction iii) Leukaemia iv) Anemia | |
| | v) Mitochondria | |
| Q.3 | (a) Explain the physiology of muscle contraction. | 06 |
| | (b) Write functions of skin in detail with a labeled diagram. | 05 |
| | (c) Describe various types of synovial joints. | 05 |
| Q.4 | (a) Explain in detail the mechanism of blood clotting. | 06 |
| | (b) Write composition and functions of lymph. | 05 |
| | (c) Differentiate sympathetic and parasympathetic nervous system. | 05 |
| Q.5 | (a) Enumerate bones of appendicular skeletal system and write its functions in brief. | 06 |
| | (b) Describe the regulation of blood pressure. | 05 |
| | (c) Write a note on reticulo endothelial system. | 05 |
| Q. 6 | (a) Explain events of cardiac cycle in detail. | 06 |
| | (b) Define cell. Explain the basic structure of cell with schematic diagram. | 05 |
| | (c) Write a note on electrocardiogram. | 05 |
| Q.7 | (a) Describe various transport mechanisms across the cell membrane. | 06 |
| | (b) Describe the physiology of hearing. | 05 |
| | (c) Enumerate cranial nerves and write its function of each. | 05 |
