

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III(NEW) EXAMINATION – SUMMER 2023****Subject Code:3130304****Date:26-07-2023****Subject Name:Human Anatomy & Physiology-I****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

- | | | |
|------------|---|-----------|
| Q.1 | (a) Differentiate Between: Superior & Inferior, Anterior & Posterior, Proximal & Distal. | 03 |
| | (b) Define: Tissue and Give Basic Types and Classification of Tissue. | 04 |
| | (c) Draw Neat Labeled Diagram of Cell and Explain Functions of Various cell organelles. | 07 |
| Q.2 | (a) Give Full Form of : SA Node, AV Node, ECG | 03 |
| | (b) Enlist Different Types of chemical Reactions? And Explain Synthesis and Decomposition reaction with Suitable Example. | 04 |
| | (c) Describe Structure of Skin with necessary Diagram. | 07 |
| | OR | |
| | (c) Explain Gas Exchange Process during Internal and External Respiration. | 07 |
| Q.3 | (a) Enlist Different Types of Cell Junctions. | 03 |
| | (b) Enlist and Explain Functions of Blood. | 04 |
| | (c) Draw neat structure of Cell membrane and Explain it. | 07 |
| | OR | |
| Q.3 | (a) Differentiate between Homeostasis and Hemostasis | 03 |
| | (b) Explain Squamous and Cuboidal Epithelial Tissue with necessary Diagram. | 04 |
| | (c) Explain Systemic and Pulmonary Blood Circulation through heart with necessary Diagram. | 07 |
| Q.4 | (a) Enlist the major Functions of Bone and Skeletal System. | 03 |
| | (b) Describe the structure and function of the valves of the heart. | 04 |
| | (c) Explain Anatomy of Lower Respiratory organ in detail. | 07 |
| | OR | |
| Q.4 | (a) Classify bones based on their shape or location. | 03 |
| | (b) Define: Tidal Volume, Residual Volume, Vital Capacity, Total Lung Capacity | 04 |
| | (c) Draw ECG wave Form and Give significance & Correlation of ECG Waves with Atrial and Ventricular Systole. | 07 |
| Q.5 | (a) Enlist the Bones of Upper Limb. | 03 |
| | (b) Identify the location and surface features of the parietal bones. | 04 |
| | (c) Describe the structure and functions of each part of a long bone with diagram. | 07 |
| | OR | |
| Q.5 | (a) Explain Fibrous Joints. | 03 |
| | (b) Identify the location and surface features of the sternum. | 04 |
| | (c) Describe the six subtypes of synovial joints in detail. | 07 |
