

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2130304****Date: 02/06/2017****Subject Name: Human Anatomy & Physiology****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

| | | MARKS |
|------------|---|--------------|
| Q.1 | Short Questions | 14 |
| | 1 Define Homeostasis. | |
| | 2 Give an example of Body Buffer. | |
| | 3 Define Osmosis. | |
| | 4 Mention the Cell Organelle that synthesizes the Proteins from amino acids. | |
| | 5 What is the function of Heparin? | |
| | 6 What is the function of Histamine? | |
| | 7 Why Endocrine Glands are called Ductless Glands. | |
| | 8 Which are the Principal ions responsible for generating Action Potential? | |
| | 9 What is Blind spot? | |
| | 10 Mention the function of Amylase. | |
| | 11 Bile is secreted by _____. | |
| | 12 Mention the function Hilum. | |
| | 13 Which is the longest and heaviest bone of the body? | |
| | 14 Which cavity is present in the Shoulder Joint? | |
| Q.2 | (a) Explain the generation of Action Potential. | 03 |
| | (b) What is the Difference between Negative and Positive Feedback System? | 04 |
| | (c) Explain the Cell structure with Neat Diagram. | 07 |
| | OR | |
| | (c) Explain different types of Tissues. | 07 |
| Q.3 | (a) Define: Erythrocyte Count, MCHC & MCV. | 03 |
| | (b) Explain the Blood Groups. | 04 |
| | (c) Explain the development of Bone Tissue. | 07 |
| | OR | |
| Q.3 | (a) Define: Haemoglobin, MCH & PCV | 03 |
| | (b) Mention the function of Autonomic Nervous system. | 04 |
| | (c) Explain the Process of Haemostasis. | 07 |
| Q.4 | (a) Write a short note on Grey Matter. | 03 |
| | (b) Explain the structure of Blood Vessels. | 04 |
| | (c) Explain the mechanism of Hearing. | 07 |
| | OR | |
| Q.4 | (a) How is Cardiac output related to Stroke volume? | 03 |
| | (b) Explain the structure of Axon. | 04 |
| | (c) Explain the relationship between sympathetic stimulation and Blood vessel diameter. | 07 |
| Q.5 | (a) Explain the functions of Pharynx. | 03 |

- (b) Write a short note on Micturition. **04**
(c) Explain the Physiology of Sight. **07**

OR

- Q.5** (a) Define: IRV, FRC & RV. **03**
(b) Explain the composition and Function of Gastric Juice. **04**
(c) What is the difference between Internal and External Respiration? **07**
