

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III (NEW) EXAMINATION – WINTER 2021****Subject Code:3130304****Date:19-02-2022****Subject Name:Human Anatomy & Physiology-I****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.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
<b>Q.1</b>	(a) Explain briefly: Anatomical planes of human body	<b>03</b>
	(b) Define: Distal, Proximal, Anterior, Posterior	<b>04</b>
	(c) Draw and explain structure of a plasma membrane in detail.	<b>07</b>
<b>Q.2</b>	(a) Explain power house of the Cell.	<b>03</b>
	(b) Enlist Functions of Blood.	<b>04</b>
	(c) Explain negative and positive feedback system for homeostasis with example.	<b>07</b>
<b>OR</b>		
	(c) Draw and Explain Neat Structure & Functions of cell.	<b>07</b>
<b>Q.3</b>	(a) Explain erythropoiesis.	<b>03</b>
	(b) Enlist the function of Epithelial tissues.	<b>04</b>
	(c) Write a short note on Blood Groups.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Define: Vital capacity, tidal volume, expiratory reserve volume	<b>03</b>
	(b) Draw Structure of respiratory system.	<b>04</b>
	(c) Explain Physical principle of gas exchange in respiratory system.	<b>07</b>
<b>Q.4</b>	(a) Define the following terms: i. Cardiac output ii. Blood pressure	<b>03</b>
	(b) Draw a figure of Conduction system of Human Heart.	<b>04</b>
	(c) Write short note on: Pulmonary circulation, Systemic circulation	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) List the functions of cerebrospinal fluid.	<b>03</b>
	(b) Explain in brief anatomy of Ear with diagram.	<b>04</b>
	(c) Write a short note on human Eye.	<b>07</b>
<b>Q.5</b>	(a) State Functions of Liver.	<b>03</b>
	(b) Compare and contrast the structure and functions of sympathetic and parasympathetic nervous systems.	<b>04</b>
	(c) Explain structure & Functions of Large & small Intestine.	<b>07</b>
<b>OR</b>		
<b>Q.5</b>	(a) Explain the structure of long bone with the help of diagram.	<b>03</b>
	(b) Explain any one of Muscle Tissue.	<b>04</b>
	(c) Explain Physiology of Urine Formation detail.	<b>07</b>

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