

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– III (New) EXAMINATION – WINTER 2019****Subject Code: 3130304****Date: 28/11/2019****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.

	<b>Marks</b>
<b>Q.1</b> (a) Define terms: 1.Anatomical Position, 2. Proximal, 3.Distal.	<b>03</b>
(b) Describe different types of Body planes with necessary figures.	<b>04</b>
(c) Draw different levels of structural Organization and Explain any two Cell organelles in detail.	<b>07</b>
<b>Q.2</b> (a) Describe Main Functions of bones.	<b>03</b>
(b) Draw and Explain General structure of a long bone.	<b>04</b>
(c) Describe The bones of the thorax or thoracic cage in detail.	<b>07</b>
<b>OR</b>	
(c) Explain structure and Function of Plasma membrane.	<b>07</b>
<b>Q.3</b> (a) Enlist Functions of the Heart.	<b>03</b>
(b) Draw neat labeled diagram of Human Heart.	<b>04</b>
(c) Describe structure and Function Thymus gland.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Draw a figure of systemic circulation.	<b>03</b>
(b) Write a short note on Homeostasis.	<b>04</b>
(c) Explain cardiac conduction system with proper diagram.	<b>07</b>
<b>Q.4</b> (a) Define: Tidal Volume, Inspiratory Reserve Volume, And Expiratory Reserve Volume.	<b>03</b>
(b) Draw a figure of The organs of respiration.	<b>04</b>
(c) Explain Cycle of respiration.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Define: Functional Residual Capacity, Residual Volume, and Vital Capacity.	<b>03</b>
(b) Draw a neat diagram which shows composition of blood.	<b>04</b>
(c) Give the reason: Transport of blood oxygen and carbon dioxide is essential for internal respiration to occur.	<b>07</b>
<b>Q.5</b> (a) Which are main functions of the skin?	<b>03</b>
(b) Write a short note on Nails.	<b>04</b>
(c) Compare and contrast the processes of primary and secondary wound healing.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) Explain Mechanisms of heat loss.	<b>03</b>
(b) Describe the composition and the main functions of Lymph.	<b>04</b>
(c) Describe the structure of the skin.	<b>07</b>

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