

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– III (New) EXAMINATION – WINTER 2019****Subject Code: 2130401****Date: 30/11/2019****Subject Name: Introductory Biology****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.

		MARKS
Q.1	(a) Define the terms biology, metabolism and growth.	03
	(b) Explain various theories for origin of life.	04
	(c) Explain different parts of flower with a neat diagram.	07
Q.2	(a) Explain modern views of Darwinism.	03
	(b) What is metabolism? Explain in brief.	04
	(c) Explain epithelial tissue in detail.	07
	OR	
Q.3	(c) Explain complex tissues of plants.	07
	(a) What is cymose and racemose type of inflorescence?	03
	(b) What is function of root in plants? Explain its types.	04
	(c) Write a short note on monocot seed.	07
	OR	
Q.3	(a) What is node and internode in plants?	03
	(b) What is meristematic tissue?	04
	(c) Write a short note on dicot seed.	07
Q.4	(a) What are adhesion junction and tight junction?	03
	(b) What is transpiration? What are the factors affecting transpiration in plants?	04
	(c) Explain Dicot stem with neat diagram.	07
	OR	
Q.4	(a) What is role of nitrogen and phosphorus in plant growth?	03
	(b) Explain neural tissue in brief.	04
	(c) Draw and explain nitrogen cycle.	07
Q.5	(a) How does exchange of gases occur on surface of lungs?	03
	(b) Explain role of adrenal gland in human body.	04
	(c) Draw neat diagram of human heart.	07
	OR	
Q.5	(a) Compare light and dark reaction in plants.	03
	(b) Draw neat diagram of neuron.	04
	(c) Explain role of pancreas as gland as well as accessory organ in digestive process in humans.	07
