Seat No.: _____   Enrolment No._____

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	
	(c)	Explain complex tissues of plants.	**07**
Q.3	**(a)**	What is cymose and racemose type of infloroscence?	**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 pancrease as gland as well as accessory organ in digestive process in humans.	**07**

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