

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2130401****Date: 02/06/2017****Subject Name: Introductory Biology****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 What are autotrophs?	1
	2 Name three regions of stomach.	1
	3 Name the cells found in blood.	1
	4 Name the pathways for absorption of water by roots.	1
	5 What is function of root cap?	1
	6 Name simple tissues in plants.	1
	7 Define the term metabolism.	1
	8 What is end product of Dark Reaction?	1
	9 Give examples of free living nitrogen fixing microbes.	1
	10 What is androecium?	1
	11 What is seed coat?	1
	12 Give example of monocot seed.	1
	13 What is node of Ranvier?	1
	14 Name the hormones produced by ovary.	1
Q.2	(a) Define the terms: Adaptation, Evolution and Development.	03
	(b) Write a brief note on: Genetic basis of adaptation.	04
	(c) What are basic characteristics of an organism?	07
	OR	
	(c) What are modern views of Darwinism?	07
Q.3	(a) Draw a neat diagram of flower mentioning all its parts.	03
	(b) Explain C4 pathway in plants with a neat diagram.	04
	(c) Write a short note on xylem tissue.	07
	OR	
Q.3	(a) Draw a neat diagram of monocot stem with proper label.	03
	(b) Explain any two factors affecting rate of photosynthesis.	04
	(c) Explain anatomy of dicot stem with a neat diagram.	07
Q.4	(a) Write a brief note on water potential.	03
	(b) Explain nodule formation in plant.	04
	(c) Explain light reaction in detail.	07
	OR	
Q.4	(a) Write a brief note on transpiration.	03
	(b) Enlist different macronutrient and explain role of any one in growth of plants.	04
	(c) Explain basic structure of plant stem along with its modifications.	07
Q.5	(a) Draw a neat diagram of human respiratory tract.	03
	(b) Explain various digestive disorders.	04
	(c) Explain double circulation in human with a neat diagram.	07

OR

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| Q.5 | (a) | Draw a neat diagram of neuron cell. | 03 |
| | (b) | Explain about hormones released by pancreas. | 04 |
| | (c) | Draw and explain human alimentary canal. | 07 |
