Seat No.:	Enrolment No
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **BE SEMESTER-IV • EXAMINATION – SUMMER-2015**

Subject Code 140401	Date:05 /06/2015
Subject Code:140401	Date:05/00/2015

Subject Name: Molecular Biology and Genetics

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Time: 10.30AM-01.00PM		Total Marks: 70

## **Instructions:**

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

-	Q.1	(a)	Describe in detail Mendel's Genetics.	07
		<b>(b)</b>	Write about structure of Eukaryotic chromosome.	07
	Q.2	(a)	Explain the experiment that proves that DNA is a genetic material.	07
		<b>(b)</b>	Give a brief account on cistron, recon and muton.	07
			OR	
		<b>(b)</b>	Write a note on chromosomal disorders.	07
	Q.3	(a)	Give detail account on one gene one protein hypothesis.	07
		(b)	Elaborate semi conservative mode of replication.	07
			OR	
	Q.3	(a)	Enlist and explain the role of enzymes involved in eukaryotic replication.	07
		(b)	Explain in brief about promoter, silencer and enhancer.	07
	Q.4	(a)	What do you mean by post transcriptional modification? Write the modification takes place for mRNA.	07
		(b)		07
	Q.4	(a)	Describe in detail about types and characteristics of genetic code.	07
	Ž	(b)	Elaborate on repetitive nucleotide sequences in Eukaryotic genome.	07
	Q.5	(a)	Explain the process of protein synthesis in eukaryotes.	10
	4.0	(b)	Write a brief account on following:	04
		(~)	pleiotropy, epistasis	
			OR	
	05	(0)	Discuss transcription in prokaryotes.	10
	Q.5	(a)	Write about concept of auxiliary proteins.	04
		<b>(b)</b>	write about concept of auxiliary proteins.	VT
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