

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharmacy - SEMESTER– VIII • EXAMINATION – SUMMER-2018

Subject Code:2280015

Date: 09/05/2018

Subject Name: Genetic Engineering and Gene Therapy

Time:10:30am to 01:30pm

Total Marks: 80

Instructions:

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

Q.1	(a) Write applications of genetic engineering.	06
	(b) Explain gene organization in cell.	05
	(c) Explain synthesis of cDNA.	05
Q.2	(a) Explain the methods used for isolation of RNA.	06
	(b) Explain about DNA modifying enzymes.	05
	(c) Write a note on transformation.	05
Q.3	(a) Enumerate the types of vectors. Explain any one vector in detail with diagram.	06
	(b) Write in detail about gene cloning with neat labeled diagram.	05
	(c) Write short note on Transgenic plants.	05
Q.4	(a) What is PCR? Explain applications of PCR in detail.	06
	(b) Write a short note on handling and quantification of nucleic acids.	05
	(c) Enumerate different of DNA sequencing. Explain any one method of DNA sequencing in detail with suitable diagram.	05
Q.5	(a) What are monoclonal antibodies? How they are produced using the techniques of genetic engineering?	06
	(b) Explain PCR cycle in detail.	05
	(c) Explain about DNA vaccines against Cancer.	05
Q. 6	(a) Write a note on Automatic DNA sequence.	06
	(b) Write about r-DNA technology in treatments of medical conditions.	05
	(c) Write short note on gene therapy for hematopoietic disorders,	05
Q.7	(a) Write a note on antisense- oligonucleotide therapy.	06
	(b) Write short note on gene therapy for Neurological Diseases.	05
	(c) Discuss blotting techniques in detail.	05
