

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2180402****Date:15/05/2019****Subject Name:Animal and Plant Biotechnology****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	(a) Give examples of substrate surfaces for animal cell culture.	3
	(b) Write in detail advantages of serum free media.	4
	(c) Limitation and advantages of animal cell culture.	7
Q.2	(a) What are feeder layers?	3
	(b) What are the steps involved in warm and cold trypsinization?	4
	(c) Write a note on artificial skin and artificial cartilage	7
	OR	
Q.3	(c) Describe about animal cell culture laboratory facilities with plan.	7
	(a) Factors to be considered for tissue engineering.	3
	(b) Write an account on application of endosperm culture	4
	(c) Describe the procedure adopted in IVF in humans.	7
	OR	
Q.3	(a) What is micropropagation?	3
	(b) Disadvantages of using serum in animal cell culture.	4
	(c) Write short notes on haploid production.	7
Q.4	(a) Write a short note on sterilization of explant.	3
	(b) Name any four medias for animal cell culture and plant cell culture each.	4
	(c) Explain the culture procedure for animal tissue culture.	7
	OR	
Q.4	(a) What are satellite RNAs?	3
	(b) Write a note on pH and light requirement for plant tissue culture .	4
	(c) Media component of plant tissue culture	7
Q.5	(a) Name any four plant hormones and explain about any one of them.	3
	(b) What is soma clonal variation?	4
	(c) What is anther culture? Write its applications.	7
	OR	
Q.5	(a) What is callus?	3
	(b) How will you develop salt-tolerant crop variety?	4
	(c) What is PTC? Describe the typical laboratory organization for PTC with labelled diagram.	7
