Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (NEW) - EXAMINATION - SUMMER 2017

Total Marks: 70

Subject Code: 2180402 Date: 29/04/2017
Subject Name: Animal and Plant Biotechnology

Time: 10:30 AM to 01:00 PM Instructions:

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

Q.1	(a) (b)	Comment on the scope of animal cell and tissue culture. Describe the culture media for animal cell and tissue culture.	07 07
Q.2	(a)	Explain the typical procedures involved in the culturing of animal cells and tissues under artificial conditions.	07
	(b)	Discuss enzymatic and mechanical methods of animal tissue disaggregation. OR	07
	(b)	Discuss the limitations of different animal tissue culture techniques.	07
Q.3	(a)	Comment on the sterilization of media, containers and instruments used in the plant tissue culture laboratory.	07
	(b)	How will you maintain aseptic conditions in the plant tissue culture laboratory? OR	07
Q.3	(a)	Give a comparative account on mature embryo culture vs. immature embryo culture techniques.	07
	(b)	What is micropropagation? Describe different stages of micropropagation with suitable diagrammatic representation.	07
Q.4	(a)	What are secondary metabolites? Comment on the production and use of secondary metabolites.	07
	(b)	Discuss the future perspectives of commercial transgenic crops. OR	07
Q.4	(a)	Comment on the production strategy of transgenic sheep.	07
	(b)	Comment on the production strategy of transgenic cow.	07
Q.5	(a)	Describe various applications of plant tissue culture techniques.	07
	(b)	Comment on the use of IVF & ET techniques for farm animals.	07
0.5	(-)	OR	07
Q.5	(a)	Explain the procedure involved in the production of haploids.	07
	(b)	Comment on the use of terminator gene technology in hybrid seed production.	07
