

(BIT40111)

UNIT III

M.Sc. DEGREE EXAMINATION, APRIL 2017.

5. What are IPR's? Discuss their types.

Fourth Semester

Or

Biotechnology

6. Discuss the aspects of basic and applied research.

Paper I — IPR, BIOETHICS, BIOSAFETY AND
RESEARCH METHODOLOGY

UNIT IV

(Regulation 2011)

7. Emphasize the importance of internet in research.

Time : Three hours

Maximum : 70 marks

Or

Answer FIVE questions.

8. Discuss the design of the experimental programme.

UNIT I

UNIT V

1. Give an account on causes of unethical acts, policies and procedures and personal gains.

9. Write the criteria for sanctioning a budget for a research project.

Or

Or

2. Write an essay on good manufacturing practices.

UNIT II

10. Mention the various sources of government funding agencies in India.

3. Explain the importance of biosafety for human health and environment.

Or

4. Give an account on the GMO's and the impact of their release into the environment.

(BIT40211)

UNIT III

M.Sc. DEGREE EXAMINATION, APRIL 2017.

Fourth Semester

Biotechnology

Paper II — ANIMAL BIOTECHNOLOGY

(Regulation 2011)

Time : Three hours

Maximum : 70 marks

Answer ONE question from each Unit.

All questions carry equal marks.

UNIT I

1. Explain the physical, chemical and metabolic functions of media.

Or

2. Write an essay on cell viability and cytotoxicity.

UNIT II

3. Discuss the different types of stem cells.

Or

4. Describe the cell cycle dynamics of different stem cells.

5. Give an account on animal cloning and its applications in wild life and life stock.

Or

6. Write an essay on the regulatory aspects of therapeutic uses of stem cells. Add a note on the ethico-legal issues.

UNIT IV

7. Explain the generation and characterization of transgenic and knock out mice.

Or

8. Discuss the applications of transgenic animal models for various diseases.

UNIT V

9. Discuss the production of vaccines and their applications.

Or

10. Describe the genetic and non-genetic manipulation of Rumen microbes.

(BIT40311)

UNIT III

M.Sc. DEGREE EXAMINATION, APRIL 2017.

Fourth Semester

Biotechnology

Paper III – PLANT BIOTECHNOLOGY

(Regulation 2011)

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

UNIT I

1. Discuss the composition, preparation and sterilization of media.

Or

2. Give an account on significance and advantages of haploid plants.

UNIT II

3. Describe the cell culture techniques for the micropropagation of food and fruit crops.

Or

4. Discuss the production of secondary metabolites and the factors affecting their yield.

5. What is abiotic stress? Explain the production of transgenic plants tolerant to abiotic stress conditions.

Or

6. Describe the production of transgenics with improved yields and nutritional quality.

UNIT IV

7. Discuss the biosynthesis of enzymes from plants with suitable examples.

Or

8. Give an account on the breeding strategies employed in plant biotechnology.

UNIT V

9. Write an essay on the economic importance of algae.

Or

10. What are biofertilizers? Discuss algal biofertilizers and their uses in agriculture.