

III B.Tech. I Semester Regular Examinations, November -2005
PLANT BIO-TECHNOLOGY
(Bio-Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Discuss the importance of Plant tissue culture in India? [16]
2. What are alkaloids? Explain the process for the production of alkaloids? [4+12]
3. Write a detailed account on immobilization technology used in bioreactors? [16]
4. How transgenic plants are produced by vector mediated gene transfer? [16]
5. Write about general characteristic features of plant viral vectors? [16]
6. What is a bacterioid? Explain its role in Nitrogen fixation? [4+12]
7. Give an account on the transposons of Prokaryotes? [16]
8. Explain the applications of the transformed plants. [16]

III B.Tech. I Semester Regular Examinations, November -2005
PLANT BIO-TECHNOLOGY
(Bio-Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Discuss the importance of Plant tissue culture in India? [16]
2. What are secondary plant products? Describe the pharmaceuticals, insecticides and food additives produced through biotechnological methods? [4+12]
3. Explain the factors effecting growth in a bioreactor? [16]
4. Write short notes on any two [8+8]
 - (a) Coculture
 - (b) Scorable gene
 - (c) Gus genes
5. What is the importance of Agroinfection in gene transfer using virus as vectors? [8+8]
6. Explain different aspects of Nitrogen fixation? [16]
7. How the plant system develops the disease resistance ability? Explain. [16]
8. Give an account on the herbicide resistant plants. [16]

III B.Tech. I Semester Regular Examinations, November -2005

PLANT BIO-TECHNOLOGY

(Bio-Technology)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. Write short notes on any two [8+8]
 - (a) Micropropagation
 - (b) Synthetic seeds
 - (c) Poly Ethylene Glycol
2. Give an account on different secondary metabolites of plant origin? [16]
3. What are the different bioreactors? Compare the functioning of different bioreactors? [8+8]
4. What are the different plasmids of Agrobacterium used in the transformation process? [16]
5. Write about general characteristic features of plant viral vectors? [16]
6. Write short notes on any two [8+8]
 - (a) Nitrogenase
 - (b) Ferridoxin
 - (c) Leghemoglobin
7. Barbara Mc Clintock discovery of colour change in maize OF great significance in modern genetics - Justify. [16]
8. Write short notes on any two [8+8]
 - (a) Protinase inhibitors
 - (b) Recombinant baculovirus
 - (c) Insect control agents

III B.Tech. I Semester Regular Examinations, November -2005

PLANT BIO-TECHNOLOGY

(Bio-Technology)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. What is meant by plant tissue culture? Explain it with its applications. [2+14]
2. What are elicitors? Give an account on a variety of physiological responses produced under chemically defined and fungal elicitor stress. [4+12]
3. Bio process mechanism involved in alkaloid production? [16]
4. What is the importance of T-DNA in Agrobacterium mediated gene transfer? [16]
5. How the plant viruses are classified and what is the importance of viruses in the foreign gene integration? [6+10]
6. Write short notes on any two [8+8]
 - (a) nif gene
 - (b) nod gene
 - (c) Rhizobium
7. Barbara Mc Clintock discovery of colour change in maize OF great significance in modern genetics - Justify. [16]
8. Write a note on the insect resistant plants. [16]
