

ANDHRA UNIVERSITY
B.Sc. DEGREE EXAMINATION
III SEMESTER END MODEL PAPER
IMMUNOLOGY & r-DNA TECHNOLOGY
BIOTECHNOLOGY
(Effective from 2021-2022 admitted batch)

Time: 3 h

Max. Marks: 75 M

PART-A (5 X 5=25 Marks)

Answer any FIVE from the following eight questions

1. Antigen
2. Cytokines
3. Adjuvant
4. Precipitation
5. Cosmids
6. Northern Blotting
7. Transcriptomics
8. Protein databases

PART-B (5 X 10=50 Marks)

Answer ALL the following questions

9. a) Write about the primary and secondary lymphoid organs.
OR
b) Give a detailed account on MHC.
10. a) Describe the mechanism of Hybridoma Technology.
OR
b) Explain the different types of Hypersensitivity. State an example for each.
11. a) Describe the various Tools of Genetic engineering.
OR
b) Describe the principle and steps involved in PCR. Write a note on its applications.
12. a) Give a detailed account on the different selection and screening methods of r-DNA.
OR
b) Explain the applications of r-DNA technology in medicine.
13. a) Write a note on the nucleotide and protein BLAST Analysis.
OR

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ANDHRA UNIVERSITY
B.Sc. DEGREE EXAMINATION
IV SEMESTER END MODEL PAPER
PLANT AND ANIMAL BIOTECHNOLOGY
BIOTECHNOLOGY
(Effective from 2021-2022 admitted batch)

Time: 3 h

Max. Marks: 75 M

PART-A (5 X 5=25 Marks)

Answer any FIVE from the following eight questions

1. Callus culture
2. Somatic embryogenesis
3. Bt cotton
4. Ri plasmid
5. Cryopreservation
6. Cell viability test
7. Gene therapy
8. Biosafety levels

PART-B (5 X 10=50 Marks)

Answer ALL the following questions

9. a) Write about the establishment of plant cultures and mention the applications of plant tissue culture.

OR

b) Describe the protoplast culture and somatic hybridization technique.

10. a) Elucidate the role of Transgenic plants as Bioreactors.

OR

b) Explain the different types of Molecular markers and their applications.

11. a) Describe the Animal Tissue culture technique.

OR

b) Write a note on the different Transformation techniques and their applications.

12. a) Mention the recombinant DNA products in medicine.

OR

b) Give a detailed account on IVF procedure.

13. a) Write about the Bioethics in cloning and stem cell research.