4. Write the procecure for the production of insect and herbicide resistant plants. 7+7=14

5. Define QTL. Discuss the procedure of QTL mapping. Write a note on the applications of QTL mapping. 2+7+5=14

Or

6. Why is mitrochondrial DNA used in species identification? Write a note on the structural organization of vertebrate mitochondrion with special reference to genes and their functions. 7+7=14

7. Describe pharmaceutical products. Write a note on different therapeutics and vaccines used for humans. 6+8=14

Or

8. What do you mean by gene therapy? Write a note on the advantages and disadvantages of gene therapy. 6+8=14

9. Why is human genome sequencing important? Write a note on the essential features of human genome as revealed by human genome project (HGP). 4+10=14

Or

10. Write short notes on : 7+7=14

    (i) Patent requirements and procedure of patent filing.

    (i) Patenting of DNA and life forms.

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PG Even Semester Examination, September, 2023

BIOTECHNOLOGY

(4th Semester)

Course No: BTYCC-402

(Plant Biotechnology, Animal Biotechnology and Applications of Genetic Engineering)

FM: 70
Pass Marks : 28
Time: 3 Hours

The figures in the right margin indicate full marks for the question

1. What do you mean by haploid? write the procedure of haploid production with special reference to microspore culture. Write the applications of haploid in modern agriculture. 2+9+3=14

Or

2. What is somatic hybridization? Write the procedure of somatic hybridization with reference to protoplast fusion. Add a note on cybrid. 2+9+3=14

3. What is a transgenic plant? Write a note on the structure of Ti plasmid. Write the method of gene transfer using Ti plasmid as cointegrate vector. 2+5+7=14

Or