



- Q5 Give an account on the role of recombinant DNA technology in production of therapeutic proteins. (20)
- Q6 a) Describe the genetic features of the vector pBR322. (8)
- b) What are the salient genetic features of a typical *E. coli* based expression vector? (8)
- c) Explain the meaning of “Competent *E.coli*”. (4)
- Q7 a) Give the major applications of cDNA and genomic library. (10)
- b) Describe the structure of BAC vector. (10)
- Q8 a) Define Gene Therapy. How is in vivo gene therapy different from ex vivo gene therapy? (5+5)
- b) Describe the method of production of the transgenic plant for insect resistance. (10)

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**