

TE- BT/V/Rev/G.E.

13/05/15

Genetic Engg

18

QP Code : 3419

(3 Hours)

Total Marks: 80

- N.B.** 1) Q.No. 1 is compulsory.  
 2) Attempt any 4 questions from Q.No. 2 to 6.  
 3) All questions carry equal marks

- Q1. Answer the following (any 4):- [20]  
 a Write a short note on type II restriction endonucleases  
 b Diagrammatically represent a method of cDNA synthesis  
 c Write a short note on transformation  
 d Explain the role of terminal deoxynucleotidyl transferase in gene cloning  
 e Write a note on types of ELISA
- Q2. a Explain any two methods of transferring DNA into a cell [10]  
 b Explain the process of cloning in plants using a Ti plasmid [10]
- Q3. a What are plasmids. Explain the principle and procedure of alkaline lysis method of plasmid purification [10]  
 b Explain the role of cell lines in production of biomolecules [10]
- Q4. a Write a short note on Southern hybridization technique [10]  
 b Explain the cloning strategy in a typical pET21 vector [10]
- Q5. a Explain the process of cloning in a pUC plasmid vector [10]  
 b Write a note on role of alkaline phosphatase and polynucleotide kinase in cloning [10]
- Q6. a Explain the role of RNA interference in medicine [10]  
 b Write a note on RAPD technique as a molecular marker [10]

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