

Code: 9A23504

B.Tech III Year I Semester (R09) Supplementary Examinations June 2017

**GENETIC ENGINEERING**

(Biotechnology)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 Write notes on:
  - (a) Lac operon.
  - (b) Repressors & activator.
- 2 Discuss the transcriptional level control mechanisms of gene regulation in eukaryotic cells.
- 3 Write short notes on:
  - (a) Classification of plasmids.
  - (b) Mechanism of bacterial transposition.
  - (c) Applications of transposons.
- 4 Write notes on:
  - (a) Methods of gene transfer.
  - (b) Restriction mapping.
- 5 Write notes on:
  - (a) DNA sequencing.
  - (b) Construction of cDNA libraries.
- 6 Write notes on:
  - (a) Design of primers.
  - (b) PCR methodology.
- 7 Write short notes on:
  - (a) Micro arrays.
  - (b) Applications of molecular markers.
  - (c) SNP's gene chip.
- 8 Describe in detail the production of insulin by r-DNA technology.

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