

Code: 9A23504

R9

B.Tech III Year I Semester (R09) Supplementary Examinations, May 2013

GENETIC ENGINEERING
(Biotechnology)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 Discuss gene regulation and expression in Prokaryotes.
- 2 Write in detail about the various stages at which regulation of genes takes place in eukaryotes.
- 3 Write short on:
 - (a) Types of plasmids.
 - (b) Mechanism of transposition and excision.
- 4 Explain the following:
 - (a) Enzymes used in manipulation of purified DNA.
 - (b) Cloning and screening in plasmid vector pBR 322.
- 5 Explain the following techniques used in genetic engineering:
 - (a) DNA hybridization.
 - (b) Construction of genomic libraries.
- 6 Describe in short about:
 - (a) Primer designing for PCR.
 - (b) Application of PCR technology.
- 7 What do you mean by RFLP and RAPD? Describe methodology and their applications.
- 8 Humans are worried about the harmful effects caused by genetic engineering. State three potential hazards imposed by it.
