

CODE NO: R050212304
SET NO. 3

2007 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

II B.TECH I SEMESTER REGULAR EXAMINATIONS
GENETICS
(BIO-TECHNOLOGY)

NOVEMBER 2007

MAX MARKS: 80
TIME: 3 HOURS

*Answer any FIVE Questions
All Questions carry equal marks*

1. Explain how Mendel proposed the principle of dominance & Principle of segregation from his experiments in monohybrid crosses. [16]
2. How is the genetic organization of Prokaryotes and Eukaryotes different? [16]
3. Which event in Meiosis acts as the principle basis of Recombination? 16]
4. Explain what is meant by mitotic crossing over? 16]
5. Describe the organization of Prokaryotic Genome. [16]
6. Differentiate between conjugation of:
 - (a) F^+ and F^-
 - (b) Hfr and F^- . [8+8]
7. Write about role of sex chromosomes in sex differentiation and development in Humans. [16]
8. Write notes on:
 - (a) Kappa phenotype
 - (b) Variegated phenotype