

II B.Tech II Semester (R09) Regular & Supplementary April/May 2012 Examinations
GENETICS & MOLECULAR BIOLOGY
(Bio Technology)

Time: 3 hours

Max Marks: 70

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Write about Mendelian laws of inheritance.
(b) Explain about identification of genetic material by experiment Hershey & Chase.
2. (a) Write about the importance of centromere and telomere in chromosome.
(b) Write about salient feature of human chromosomes.
3. Explain about sex determination in animals.
4. (a) Write about replication of DNA.
(b) Write about DNA damage and repair.
5. (a) Write about structures of m-RNA, t-RNA and r-RNA.
(b) Write about functions of RNA polymerases.
6. (a) Explain about Lac Operon model.
(b) Explain about regulation of eukaryotic gene expression.
7. (a) Write about c DNA.
(b) Write about DNA finger printing.
8. Write about colour blindness and explain as a proof of chromosomal theory of inheritance.

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1. (a) Explain about Mendelian laws of inheritance
(b) Write about the method for identification of genetic material.
2. (a) Write about chemical composition of chromatin
(b) Write about salient features of human chromosomes.
3. Explain about chromosomal disorders.
4. (a) Write about replication of DNA.
(b) Write about DNA damage and repair.
5. (a) Write about regulation of gene expression.
(b) Write about DNA fingerprinting.
6. Explain about cDNA.
7. (a) Explain about structure and functions of RNA polymerases
(b) Write about significance of southern blotting technique.
8. Write about disorders of hemophilia and explain as a proof of chromosomal theory of inheritance.

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1. (a) Describe about the significance of Mendelian laws of inheritance.
(b) Explain about group antigens
2. (a) Write about structural organization of nucleosomes.
(b) Write about salient features of human chromosomes.
3. Explain about hemoglobinopathies.
4. (a) Write about DNA and its significance features.
(b) Write about structure and functions of DNA polymerases.
5. (a) Write about structures of m-RNA, t-RNA and r-RNA.
(b) Write about functions of RNA polymerases.
6. (a) Write about initiation of transcription and translation.
(b) Explain about Lac Operon Model.
7. (a) Write about c DNA.
(b) Write about DNA finger printing.
8. Write about chromosomal linkage and crossing over.

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1. (a) Write about the significance and importance of Mendelian laws of inheritance.
(b) Explain about multiple alleles.
2. (a) Write about the significance of chromosome in living organisms.
(b) Write about salient features of human chromosomes.
3. Write about chromosomes and its morphological features.
4. (a) Write about replication of DNA.
(b) Write about DNA damage and repair.
5. (a) Write about structures of m-RNA, t-RNA and r-RNA.
(b) Write about functions of RNA polymerases.
6. (a) Write about initiation and termination of protein synthesis.
(b) Write about Lac Operon Model.
7. (a) Write about c DNA.
(b) Write about DNA finger printing.
8. Explain about disorders of coagulation.
