

Code No: R05222303

R05

Set No. 2

II B.Tech II Semester Examinations, December 2010

MOLECULAR BIOLOGY

Bio-Technology

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. What is the process, which correlates the base sequence present in an mRNA and the amino acid sequence in the final protein molecule? Describe it. [16]
2. Justify the statement-“More copies of genomic DNA can be generated efficiently through rolling circle replication”. [16]
3. What are RNA polymerases? Add a note on their role in Eukaryotic & Prokaryotic transcription process. [16]
4. Write a note on how tRNA is produced by processing larger pre-tRNA transcript. [16]
5. What is the mechanism & importance of “proof reading” function of DNA polymerase in DNA replication? [16]
6. Describe the process of gene transfer method in bacteria where bacteriophages are involved as an intermediate. [16]
7. What is meant by “A-Form”, “B-Form” & “Z-Form” of DNA? [16]
8. Describe site directed mutagenesis as one of the most established techniques in in-vitro mutagenesis. [16]

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R05

Set No. 4

II B.Tech II Semester Examinations, December 2010

MOLECULAR BIOLOGY

Bio-Technology

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. What is the process, which correlates the base sequence present in an mRNA and the amino acid sequence in the final protein molecule? Describe it. [16]
2. What is the mechanism & importance of “proof reading” function of DNA polymerase in DNA replication? [16]
3. Describe site directed mutagenesis as one of the most established techniques in in-vitro mutagenesis. [16]
4. Write a note on how tRNA is produced by processing larger pre-tRNA transcript. [16]
5. What is meant by “A- Form”, “B-Form” & “Z-Form” of DNA? [16]
6. What are RNA polymerases? Add a note on their role in Eukaryotic & Prokaryotic transcription process. [16]
7. Justify the statement-“More copies of genomic DNA can be generated efficiently through rolling circle replication”. [16]
8. Describe the process of gene transfer method in bacteria where bacteriophages are involved as an intermediate. [16]

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R05

Set No. 1

II B.Tech II Semester Examinations, December 2010

MOLECULAR BIOLOGY

Bio-Technology

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. What is the process, which correlates the base sequence present in an mRNA and the amino acid sequence in the final protein molecule? Describe it. [16]
2. What are RNA polymerases? Add a note on their role in Eukaryotic & Prokaryotic transcription process. [16]
3. Describe site directed mutagenesis as one of the most established techniques in in-vitro mutagenesis. [16]
4. Write a note on how tRNA is produced by processing larger pre-tRNA transcript. [16]
5. Describe the process of gene transfer method in bacteria where bacteriophages are involved as an intermediate. [16]
6. What is meant by "A- Form", "B-Form" & "Z-Form" of DNA? [16]
7. Justify the statement- "More copies of genomic DNA can be generated efficiently through rolling circle replication". [16]
8. What is the mechanism & importance of "proof reading" function of DNA polymerase in DNA replication? [16]

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R05

Set No. 3

II B.Tech II Semester Examinations, December 2010

MOLECULAR BIOLOGY

Bio-Technology

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. What is the mechanism & importance of “proof reading” function of DNA polymerase in DNA replication? [16]
2. What is meant by “A- Form”, “B-Form” & “Z-Form” of DNA? [16]
3. Describe the process of gene transfer method in bacteria where bacteriophages are involved as an intermediate. [16]
4. What are RNA polymerases? Add a note on their role in Eukaryotic & Prokaryotic transcription process. [16]
5. Write a note on how tRNA is produced by processing larger pre-tRNA transcript. [16]
6. What is the process, which correlates the base sequence present in an mRNA and the amino acid sequence in the final protein molecule? Describe it. [16]
7. Describe site directed mutagenesis as one of the most established techniques in in-vitro mutagenesis. [16]
8. Justify the statement-“More copies of genomic DNA can be generated efficiently through rolling circle replication”. [16]
