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Code No: R05312304 **R05** **Set No. 2**

III B.Tech I Semester Examinations,November 2010
GENETIC ENGINEERING
Bio-Technology

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. What are the limitations and advantages of gene therapy? Discuss in detail. [16]
2. How does one select a suitable vector for cloning and expression of a protein? [16]
3. What are microarrays? Explain in detail. [16]
4. How do you obtain probes for screening by hybridization procedures? [16]
5. Write short notes on:
   (a) hot-start protocol
   (b) nested primers
   (c) Q-PCR
   (d) real time QPCR. [16]
6. What do you understand by coordinated expression? How are such operons controlled? Explain by citing any single example. [16]
7. Explain the following:
   (a) Essential features of transcriptional activators
   (b) Structural features of Transcription factor IIIA. [8 × 2]
8. How are plasmids isolated from bacteria? Explain. [16]

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Code No: R05312304 **R05** **Set No. 4**

III B.Tech I Semester Examinations,November 2010
GENETIC ENGINEERING
Bio-Technology

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. How do you obtain probes for screening by hybridization procedures? [16]
2. How are plasmids isolated from bacteria? Explain. [16]
3. Write short notes on:
   (a) hot-start protocol
   (b) nested primers
   (c) Q-PCR
   (d) real time QPCR. [16]
4. What do you understand by coordinated expression? How are such operons controlled? Explain by citing any single example. [16]
5. How does one select a suitable vector for cloning and expression of a protein? [16]
6. What are the limitations and advantages of gene therapy? Discuss in detail. [16]
7. What are microarrays? Explain in detail. [16]
8. Explain the following:
   (a) Essential features of transcriptional activators
   (b) Structural features of Transcription factor IIIA. [8 × 2]

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Code No: R05312304 **R05** **Set No. 1**

III B.Tech I Semester Examinations,November 2010
GENETIC ENGINEERING
Bio-Technology

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Write short notes on:
   (a) hot-start protocol
   (b) nested primers
   (c) Q-PCR
   (d) real time QPCR. [16]
2. How are plasmids isolated from bacteria? Explain. [16]
3. What are microarrays? Explain in detail. [16]
4. How do you obtain probes for screening by hybridization procedures? [16]
5. What do you understand by coordinated expression? How are such operons controlled? Explain by citing any single example. [16]
6. Explain the following:
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   (b) Structural features of Transcription factor IIIA. [8 × 2]
7. What are the limitations and advantages of gene therapy? Discuss in detail. [16]
8. How does one select a suitable vector for cloning and expression of a protein? [16]

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Code No: R05312304 **R05** **Set No. 3**

III B.Tech I Semester Examinations,November 2010
GENETIC ENGINEERING
Bio-Technology

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. How do you obtain probes for screening by hybridization procedures? [16]
2. What are microarrays? Explain in detail. [16]
3. What are the limitations and advantages of gene therapy? Discuss in detail. [16]
4. Explain the following:
   (a) Essential features of transcriptional activators
   (b) Structural features of Transcription factor IIIA. [8 × 2]
5. Write short notes on:
   (a) hot-start protocol
   (b) nested primers
   (c) Q-PCR
   (d) real time QPCR. [16]
6. How are plasmids isolated from bacteria? Explain. [16]
7. What do you understand by coordinated expression? How are such operons controlled? Explain by citing any single example. [16]
8. How does one select a suitable vector for cloning and expression of a protein? [16]

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