

Code No: R07A12102

**R07**

**Set No. 2**

**I B.Tech Examinations, December 2010**

**FUNDAMENTALS OF BIOLOGY**

**Bio-Technology**

**Time: 3 hours**

**Max Marks: 80**

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

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1. Write an account on Pond ecosystem. [16]
2. Name three substances that are used by certain bacteria as terminal electron acceptors in the process of anaerobic respiration. How does this process differ from aerobic respiration? What is the biological importance of anaerobic respiration? [16]
3. A healthy working pancreas in the human body is important for maintaining good health by preventing malnutrition, and maintaining normal levels of blood sugar? [16]
4. What are permanent tissues? Explain with suitable diagram. [16]
5. Make a list of similarities between bacteria and blue green algae. [16]
6. Write notes on:
  - (a) Genetic engineering for microbial enzyme production
  - (b) Applications of microbial enzymes in diagnostic analysis. [8+8]
7. Describe the mechanism of transcription. [16]
8. What is a synapse? How are they differentiated? Discuss in detailed about synaptic transmission. [16]

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Code No: R07A12102

**R07**

**Set No. 4**

**I B.Tech Examinations, December 2010**

**FUNDAMENTALS OF BIOLOGY**

**Bio-Technology**

**Time: 3 hours**

**Max Marks: 80**

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

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1. What are permanent tissues? Explain with suitable diagram. [16]
2. Write an account on Pond ecosystem. [16]
3. Write notes on:
  - (a) Genetic engineering for microbial enzyme production
  - (b) Applications of microbial enzymes in diagnostic analysis. [8+8]
4. What is a synapse? How are they differentiated? Discuss in detailed about synaptic transmission. [16]
5. A healthy working pancreas in the human body is important for maintaining good health by preventing malnutrition, and maintaining normal levels of blood sugar? [16]
6. Name three substances that are used by certain bacteria as terminal electron acceptors in the process of anaerobic respiration. How does this process differ from aerobic respiration? What is the biological importance of anaerobic respiration? [16]
7. Make a list of similarities between bacteria and blue green algae. [16]
8. Describe the mechanism of transcription. [16]

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**R07**

**Set No. 1**

**I B.Tech Examinations, December 2010**

**FUNDAMENTALS OF BIOLOGY**

**Bio-Technology**

**Time: 3 hours**

**Max Marks: 80**

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

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1. A healthy working pancreas in the human body is important for maintaining good health by preventing malnutrition, and maintaining normal levels of blood sugar? [16]
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  - (a) Genetic engineering for microbial enzyme production
  - (b) Applications of microbial enzymes in diagnostic analysis. [8+8]
4. Make a list of similarities between bacteria and blue green algae. [16]
5. Name three substances that are used by certain bacteria as terminal electron acceptors in the process of anaerobic respiration. How does this process differ from aerobic respiration? What is the biological importance of anaerobic respiration? [16]
6. What are permanent tissues? Explain with suitable diagram. [16]
7. Describe the mechanism of transcription. [16]
8. Write an account on Pond ecosystem. [16]

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Code No: R07A12102

**R07**

**Set No. 3**

**I B.Tech Examinations, December 2010**

**FUNDAMENTALS OF BIOLOGY**

**Bio-Technology**

**Time: 3 hours**

**Max Marks: 80**

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

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1. What is a synapse? How are they differentiated? Discuss in detailed about synaptic transmission. [16]
2. A healthy working pancreas in the human body is important for maintaining good health by preventing malnutrition, and maintaining normal levels of blood sugar? [16]
3. What are permanent tissues? Explain with suitable diagram. [16]
4. Describe the mechanism of transcription. [16]
5. Write an account on Pond ecosystem. [16]
6. Make a list of similarities between bacteria and blue green algae. [16]
7. Write notes on:
  - (a) Genetic engineering for microbial enzyme production
  - (b) Applications of microbial enzymes in diagnostic analysis. [8+8]
8. Name three substances that are used by certain bacteria as terminal electron acceptors in the process of anaerobic respiration. How does this process differ from aerobic respiration? What is the biological importance of anaerobic respiration? [16]

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