

Code No: R05212301

R05**Set No. 2****II B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010****BIOCHEMISTRY****Bio-Technology****Time: 3 hours****Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. How glycolysis and gluconogenesis are coordinately regulated? Explain the role of hormonal influence on these two pathways. [16]
2. What do you mean by complex carbohydrates? Explain with examples. [16]
3. Write short Notes:
 - (a) Ubiquinone oxidoreductase
 - (b) Cytochrome bc1 Complex: [8+8]
4. Describe proteins conformation is stabilized largely by weak interaction. [16]
5. What is membrane fluidity? How is it controlled by fatty acid composition and cholesterol content? [16]
6. How do the biological systems get their free energy? What is the physiological significance of photosynthesis? How the basic equation of photosynthesis was discovered? [16]
7. (a) Explain the role of tetrahydrofolate in the serine/glycine interconversions. What is the coenzyme involved in this process?
 (b) Tetrahydrofolate carries activated one carbon units at several oxidation levels. Explain with suitable biochemical reactions. [8+8]
8. Explain which nucleotides are precursors in bacterial cell wall synthesis. [16]

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R05**Set No. 4****II B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010****BIOCHEMISTRY****Bio-Technology****Time: 3 hours****Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. Write short Notes:

(a) Ubiquinone oxidoreductase

(b) Cytochrome bc₁ Complex: [8+8]

2. What is membrane fluidity? How is it controlled by fatty acid composition and cholesterol content? [16]

3. How glycolysis and gluconogenesis are coordinately regulated? Explain the role of hormonal influence on these two pathways. [16]

4. Explain which nucleotides are precursors in bacterial cell wall synthesis. [16]

5. How do the biological systems get their free energy? What is the physiological significance of photosynthesis? How the basic equation of photosynthesis was discovered? [16]

6. (a) Explain the role of tetrahydrofolate in the serine/glycine interconversions. What is the coenzyme involved in this process?

(b) Tetrahydrofolate carries activated one carbon units at several oxidation levels. Explain with suitable biochemical reactions. [8+8]

7. What do you mean by complex carbohydrates? Explain with examples. [16]

8. Describe proteins conformation is stabilized largely by weak interaction. [16]

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R05**Set No. 1****II B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010****BIOCHEMISTRY****Bio-Technology****Time: 3 hours****Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. Describe proteins conformation is stabilized largely by weak interaction. [16]
2. What is membrane fluidity? How is it controlled by fatty acid composition and cholesterol content? [16]
3. How glycolysis and gluconogenesis are coordinately regulated? Explain the role of hormonal influence on these two pathways. [16]
4. Write short Notes:
 - (a) Ubiquinone oxidoreductase
 - (b) Cytochrome bc1 Complex: [8+8]
5. Explain which nucleotides are precursors in bacterial cell wall synthesis. [16]
6. How do the biological systems get their free energy? What is the physiological significance of photosynthesis? How the basic equation of photosynthesis was discovered? [16]
7. (a) Explain the role of tetrahydrofolate in the serine/glycine interconversions. What is the coenzyme involved in this process?
 (b) Tetrahydrofolate carries activated one carbon units at several oxidation levels. Explain with suitable biochemical reactions. [8+8]
8. What do you mean by complex carbohydrates? Explain with examples. [16]

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R05**Set No. 3****II B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010****BIOCHEMISTRY****Bio-Technology****Time: 3 hours****Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the role of tetrahydrofolate in the serine/glycine interconversions. What is the coenzyme involved in this process?
(b) Tetrahydrofolate carries activated one carbon units at several oxidation levels. Explain with suitable biochemical reactions. [8+8]
2. How glycolysis and gluconogenesis are coordinately regulated? Explain the role of hormonal influence on these two pathways. [16]
3. What is membrane fluidity? How is it controlled by fatty acid composition and cholesterol content? [16]
4. Write short Notes:
 - (a) Ubiquinone oxidoreductase
 - (b) Cytochrome bc₁ Complex: [8+8]
5. Explain which nucleotides are precursors in bacterial cell wall synthesis. [16]
6. Describe proteins conformation is stabilized largely by weak interaction. [16]
7. What do you mean by complex carbohydrates? Explain with examples. [16]
8. How do the biological systems get their free energy? What is the physiological significance of photosynthesis? How the basic equation of photosynthesis was discovered? [16]
