Code No: RR212303 **Set No.1**

II B.Tech. I Semester Supplementary Examinations, May -2005
BIOORGANIC CHEMISTRY
(Bio-Technology)

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What is a super molecule?
   (b) Explain about supramolecular level of complexity.
2. Explain the following with suitable examples:
   (a) Bio-chemical transformations
   (b) Assymetric synthesis of amino acids
   (c) Chemical mutations
   (d) Drug design.
3. (a) Explain about cherality of new compounds in drug design.
   (b) Describe the structural latitudes of the drug receptor complex with suitable examples.
4. Write short notes on the following:
   (a) Coenzymes
   (b) Covalent binding
   (c) Bio-transformations
   (d) Effect of pH on enzyme activity.
5. How does the structure of hemoglobin play its role in binding oxygen for its Transport.
6. Discuss in detail the role of copper ion in biological system.
7. Discuss in detail how cyclodextrin is used as a model of hydrolytic enzyme reactions.
8. Explain in detail about Bloch imaginative experiment.

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Code No: RR212303 **Set No.2**

II B.Tech. I Semester Supplementary Examinations, May -2005
BIOORGANIC CHEMISTRY
(Bio-Technology)

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

Answer any FIVE Questions
All Questions carry equal marks

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1. What do you mean by molecular adaptation? Explain with three examples.
2. Write short notes on
   (a) Explain mechanism of detoxification in the mammal
   (b) Activation of amino acid.
3. (a) What is an enzyme? What is its composition and nature? How it functions.
   (b) Explain the properties of an enzyme.
4. (a) What are the metal dependent enzymes? Give examples.
   (b) Explain the role of zinc in an enzyme.
5. (a) What are metalloenzymes and metal activated enzymes?
   (b) Metal-bridge complexes.
   (c) Role of metal ions in the mechanism of action of enzymes.
6. (a) What is a metal ion ?
   (b) Explain different biomodels of copper ions.
7. Explain in detail that bis-imidazole-cyclodextrin cleaves cyclic phosphate.
8. Explain in detail about bis(11)-keto derivative.

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Code No: RR212303 **Set No.3**

II B.Tech. I Semester Supplementary Examinations, May -2005
BIOORGANIC CHEMISTRY
(Bio-Technology)

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

Answer any FIVE Questions
All Questions carry equal marks

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1. What do you mean by antagonist and explain with different examples?
2. Bring about the analogy between organic reactions and biochemical formation with suitable examples.
3. (a) Describe how the nonenzymatic reanugument of chorismate to prephenate prefers a transition state of chainlike geometry .
   (b) How do you associate the prodigeous capacity of molecular recognition of antibodies with potential enzymatic activity.
4. Describe various industrial applications of immobilized enzymes.
5. Describe different proteins that are in association with metals.
6. Write short notes
   (a) Bolton's Model.
   (b) Dolphins Model.
7. Discuss in detail what are the new development in crown ether Chemistry.
8. Discuss in detail about remote functionalization reactions.

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Code No: RR212303 **Set No.4**

II B.Tech. I Semester Supplementary Examinations, May -2005
BIOORGANIC CHEMISTRY
(Bio-Technology)

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

Answer any FIVE Questions
All Questions carry equal marks

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1. How could you relate molecular recognition with receptor and interactions?
2. Discuss in detail about the synthesis of antibiotic peptide gramicidin S.
3. (a) Explain about cherality of new compounds in drug design.
   (b) Describe the structural latitudes of the drug receptor complex with suitable examples.
4. What are immobilized enzymes? Describe various methods used for mobilization of enzymes.
5. Write notes on the following in relation to Carboxypeptidase.
   (a) Structure & different classes.
   (b) Catalytic role.
6. Discuss in detail that how many oxidation states does copper exists.
7. Discuss in detail how cyclodextrin is used as a model of hydrolytic enzyme reactions.
8. Discuss in detail about the biosynthesis of lanosterol.

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