Code No: 07A3BS06 **R07** **Set No. 2**

II B.Tech I Semester Examinations,May/June 2012
APPLIED CHEMISTRY AND BIOCHEMISTRY
Bio-Medical Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Define EMF of a cell. How is the EMF of a galvanic cell determined by Poggendorff's compensation method.
   (b) How is the pH of a solution determined experimentally using glass electrode? [8+8]

2. (a) Write short note on:
      i. Break point chlorination
      ii. Caustic embrittlement
      iii. Carry over
      iv. Blowdown.
   (b) What is the role of buffer in EDTA titrations?
   (c) Differentiate cold lime soda process and hot lime soda process. [8+4+4]

3. (a) Differentiate ascending and descending chromatography by giving examples.
   (b) What is the principle involved in flurorimetry.
   (c) Describe the applications of isotopes in biochemistry. [8+3+5]

4. (a) What are enzymes? Classify them with suitable examples.
   (b) Describe the factors which influence the rate of enzyme action. [8+8]

5. (a) Differentiate thermoplastic and thermosetting resins. Give two examples.
   (b) What are the monomers that make PVC and Teflon? What are the special properties of Teflon.
   (c) Describe the preparation and engineering uses of Bakelite. [4+4+8]

6. Write notes on:
   (a) RNA polymerase
   (b) Fatty acid oxidation
   (c) Radio Immuno Assay(RIA). [6+5+5]

7. (a) What are the different functions of cell membrane?
   (b) Describe the structure of the Golgi complex and its functions.
   (c) Write an account on oxidative phosphorylation. [6+4+6]

8. (a) Explain the clinical measurements and analysis of acid-base disorders.
   (b) Discuss blood coagulation tests. [8+8]

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Code No: 07A3BS06 **R07** **Set No. 4**

II B.Tech I Semester Examinations,May/June 2012
APPLIED CHEMISTRY AND BIOCHEMISTRY
Bio-Medical Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What are the different functions of cell membrane?
   (b) Describe the structure of the Golgi complex and its functions.
   (c) Write an account on oxidative phosphorylation. [6+4+6]

2. (a) Differentiate thermoplastic and thermosetting resins. Give two examples.
   (b) What are the monomers that make PVC and Teflon? What are the special properties of Teflon.
   (c) Describe the preparation and engineering uses of Bakelite. [4+4+8]

3. (a) Write short note on:
      i. Break point chlorination
      ii. Caustic embrittlement
      iii. Carry over
      iv. Blowdown.
   (b) What is the role of buffer in EDTA titrations?
   (c) Differentiate cold lime soda process and hot lime soda process. [8+4+4]

4. (a) Define EMF of a cell. How is the EMF of a galvanic cell determined by Poggendorff's compensation method.
   (b) How is the pH of a solution determined experimentally using glass electrode? [8+8]

5. (a) What are enzymes? Classify them with suitable examples.
   (b) Describe the factors which influence the rate of enzyme action. [8+8]

6. Write notes on:
   (a) RNA polymerase
   (b) Fatty acid oxidation
   (c) Radio Immuno Assay(RIA). [6+5+5]

7. (a) Explain the clinical measurements and analysis of acid-base disorders.
   (b) Discuss blood coagulation tests. [8+8]

8. (a) Differentiate ascending and descending chromatography by giving examples.
   (b) What is the principle involved in flurorimetry?
   (c) Describe the applications of isotopes in biochemistry. [8+3+5]

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Code No: 07A3BS06 **R07** **Set No. 1**

II B.Tech I Semester Examinations,May/June 2012
APPLIED CHEMISTRY AND BIOCHEMISTRY
Bio-Medical Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What are enzymes? Classify them with suitable examples.
   (b) Describe the factors which influence the rate of enzyme action. [8+8]
2. (a) Differentiate ascending and descending chromatography by giving examples.
   (b) What is the principle involved in flurorimetry?
   (c) Describe the applications of isotopes in biochemistry. [8+3+5]
3. (a) Explain the clinical measurements and analysis of acid-base disorders.
   (b) Discuss blood coagulation tests. [8+8]
4. (a) Write short note on:
      i. Break point chlorination
      ii. Caustic embrittlement
      iii. Carry over
      iv. Blowdown.
   (b) What is the role of buffer in EDTA titrations?
   (c) Differentiate cold lime soda process and hot lime soda process. [8+4+4]
5. (a) What are the different functions of cell membrane?
   (b) Describe the structure of the Golgi complex and its functions.
   (c) Write an account on oxidative phosphorylation. [6+4+6]
6. (a) Define EMF of a cell. How is the EMF of a galvanic cell determined by Poggendorff's compensation method.
   (b) How is the pH of a solution determined experimentally using glass electrode? [8+8]
7. Write notes on:
   (a) RNA polymerase
   (b) Fatty acid oxidation
   (c) Radio Immuno Assay(RIA). [6+5+5]
8. (a) Differentiate thermoplastic and thermosetting resins. Give two examples.
   (b) What are the monomers that make PVC and Teflon? What are the special properties of Teflon?
   (c) Describe the preparation and engineering uses of Bakelite. [4+4+8]

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Code No: 07A3BS06 **R07** **Set No. 3**

II B.Tech I Semester Examinations,May/June 2012
APPLIED CHEMISTRY AND BIOCHEMISTRY
Bio-Medical Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

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1. Write notes on:
   (a) RNA polymerase
   (b) Fatty acid oxidation
   (c) Radio Immuno Assay(RIA). [6+5+5]
2. (a) What are enzymes? Classify them with suitable examples.
   (b) Describe the factors which influence the rate of enzyme action. [8+8]
3. (a) What are the different functions of cell membrane?
   (b) Describe the structure of the Golgi complex and its functions.
   (c) Write an account on oxidative phosphorylation. [6+4+6]
4. (a) Explain the clinical measurements and analysis of acid-base disorders.
   (b) Discuss blood coagulation tests. [8+8]
5. (a) Differentiate ascending and descending chromatography by giving examples.
   (b) What is the principle involved in flurorimetry?
   (c) Describe the applications of isotopes in biochemistry. [8+3+5]
6. (a) Differentiate thermoplastic and thermosetting resins. Give two examples.
   (b) What are the monomers that make PVC and Teflon? What are the special properties of Teflon.
   (c) Describe the preparation and engineering uses of Bakelite. [4+4+8]
7. (a) Define EMF of a cell. How is the EMF of a galvanic cell determined by Poggendorff's compensation method.
   (b) How is the pH of a solution determined experimentally using glass electrode? [8+8]
8. (a) Write short note on:
      i. Break point chlorination
      ii. Caustic embrittlement
      iii. Carry over
      iv. Blowdown.
   (b) What is the role of buffer in EDTA titrations?
   (c) Differentiate cold lime soda process and hot lime soda process. [8+4+4]

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