Code No: R07A1BS08 **R07** **Set No. 2**

I B.Tech Examinations,December 2010
PHYSICAL CHEMISTRY
Chemical Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Explain in detail the different types of colloids. [16]
2. Explain the influence of solvent on reaction rates. [16]
3. Explain in detail the application of distribution law in solvent extraction. [16]
4. Discuss the photo chemical decomposition of hydrogen iodide. How does the photo chemical decomposition of HI differ from its thermal decomposition. [16]
5. Describe the conductivity method for determining the solubility of sparingly soluble salt? [16]
6. What are the sources of the residual current in linear-scan polarography? Why are residual currents smaller with current sampled polarography? [16]
7. Draw the diagram and explain following terms.
   (a) Packed catalyst bed
   (b) Catalyst pellet. [8+8]
8. Explain the phase diagram of carbondioxide with a neat sketch and denote the various curves and areas. [16]

⋆ ⋆ ⋆ ⋆ ⋆

Code No: R07A1BS08 **R07** **Set No. 4**

I B.Tech Examinations,December 2010
PHYSICAL CHEMISTRY
Chemical Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Explain in detail the application of distribution law in solvent extraction. [16]
2. Explain the phase diagram of carbondioxide with a neat sketch and denote the various curves and areas. [16]
3. Describe the conductivity method for determining the solubility of sparingly soluble salt? [16]
4. Explain the influence of solvent on reaction rates. [16]
5. Explain in detail the different types of colloids. [16]
6. Discuss the photo chemical decomposition of hydrogen iodide. How does the photo chemical decomposition of HI differ from its thermal decomposition. [16]
7. Draw the diagram and explain following terms.
   (a) Packed catalyst bed
   (b) Catalyst pellet. [8+8]
8. What are the sources of the residual current in linear-scan polarography? Why are residual currents smaller with current sampled polarography? [16]

⋆ ⋆ ⋆ ⋆ ⋆

Code No: R07A1BS08 **R07** **Set No. 1**

I B.Tech Examinations,December 2010
PHYSICAL CHEMISTRY
Chemical Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Explain the influence of solvent on reaction rates. [16]
2. What are the sources of the residual current in linear-scan polarography? Why are residual currents smaller with current sampled polarography? [16]
3. Explain in detail the application of distribution law in solvent extraction. [16]
4. Discuss the photo chemical decomposition of hydrogen iodide. How does the photo chemical decomposition of HI differ from its thermal decomposition. [16]
5. Explain the phase diagram of carbondioxide with a neat sketch and denote the various curves and areas. [16]
6. Explain in detail the different types of colloids. [16]
7. Draw the diagram and explain following terms.
   (a) Packed catalyst bed
   (b) Catalyst pellet. [8+8]
8. Describe the conductivity method for determining the solubility of sparingly soluble salt? [16]

⋆ ⋆ ⋆ ⋆ ⋆

Code No: R07A1BS08 **R07** **Set No. 3**

I B.Tech Examinations,December 2010
PHYSICAL CHEMISTRY
Chemical Engineering

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

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. What are the sources of the residual current in linear-scan polarography? Why are residual currents smaller with current sampled polarography? [16]
2. Explain the phase diagram of carbondioxide with a neat sketch and denote the various curves and areas. [16]
3. Explain in detail the application of distribution law in solvent extraction. [16]
4. Describe the conductivity method for determining the solubility of sparingly soluble salt? [16]
5. Draw the diagram and explain following terms.
   (a) Packed catalyst bed
   (b) Catalyst pellet. [8+8]
6. Explain in detail the different types of colloids. [16]
7. Discuss the photo chemical decomposition of hydrogen iodide. How does the photo chemical decomposition of HI differ from its thermal decomposition. [16]
8. Explain the influence of solvent on reaction rates. [16]

⋆ ⋆ ⋆ ⋆ ⋆