

**Set No : 1**

**A 12**

**Sreenidhi Institute of Science & Technology**

(An Autonomous Institution)

**Code No: 121CH02**

**B. TECH. I – Year II – Semester Examinations, July, 2014 (Regular)**

**ENGINEERING CHEMISTRY -II (Common to EEE, CSE and IT)**

**Time: 3 Hours Max. Marks: 70**

**Note: No additional answer sheets will be provided.**

**Part-A**

**Max.Marks:20**

**Answer all QUESTIONS.**

1. Write phase rule equation and apply it to the system containing ice and water in equilibrium.

2. How is Dacron prepared from its monomers?

3. What is Tyndall effect?

4. Differentiate between HCV and LCV.

5. Define Flash point and Fire point

6. Give any two engineering applications of electrical insulators

7. What is co polymerization? Give an example.

8. Give any three applications of Adsorption

9. What is lubricant? How lubricants are classified?

10. Define cracking.

**Part – B**

**Max. Marks: 50**

**ANSWER ANY FIVE QUESTIONS. EACH QUESTION CARRIES 10 MARKS.**

1. a) Explain the phase diagram of Pb-Ag system. (6M)

b) Define degrees of freedom. Give the conditions of triple point for water system and calculate the

degrees of freedom of water system at triple point. (4M)

2. a) Explain the chemistry of vulcanization of rubber

b) Differentiate between addition and condensation polymerization

3. a) Explain Longmuir adsorption isotherm.

b) Write a note on i) Brownian motion ii) Tyndall effect

4. a) Write about Bergius process for the preparation of petrol from coal.

b) Explain proximate analysis of coal.

5. a) Explain the mechanism of boundary film lubrication.

b) What are the important functions of lubricants?

6. a) How the refractory materials are classified ? Give suitable examples.

b) What are the thermal insulators? Give their applications.

7. a) Write the preparation, properties and applications of i) Buna-S ii) Teflon (6M)

b) Write a note on Hardening and Annealing. (4M)

8. a) Explain ultimate analysis of coal. (6M)

b) Write about extreme pressure lubrication. (4M)

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**Set No : 2**

**A 12**

**Sreenidhi Institute of Science & Technology**

(An Autonomous Institution)

**Code No: 121CH02**

**B. TECH. I – Year II – Semester Examinations, July, 2014 (Regular)**

**ENGINEERING CHEMISTRY -II (ECE, ME and ECM)**

**Time: 3 Hours Max. Marks: 70**

**Note: No additional answer sheets will be provided.**

**Part-A**

**Max.Marks:20**

**Answer all QUESTIONS.**

1. Give any two engineering applications of electrical insulators

2. What is co polymerization? Give an example.

3. Give any three applications of Adsorption

4. What is lubricant? How lubricants are classified?

5. Define cracking.

6. Write phase rule equation and apply it to the system containing ice and water in equilibrium.

7. How is Dacron prepared from its monomers?

8. What is Tyndall effect?

9. Differentiate between HCV and LCV.

10. Define Flash point and Fire point

**Part – B**

**Max. Marks: 50**

**ANSWER ANY FIVE QUESTIONS. EACH QUESTION CARRIES 10 MARKS.**

1. a) Explain the mechanism of boundary film lubrication.

b) What are the important functions of lubricants?

2. a) How the refractory materials are classified ? Give suitable examples.

b) What are the thermal insulators? Give their applications.

3. a) Write the preparation, properties and applications of i) Buna-S ii) Teflon (6M)

b) Write a note on Hardening and Annealing. (4M)

4. a) Explain ultimate analysis of coal. (6M)

b) Write about extreme pressure lubrication. (4M)

5. a) Explain the phase diagram of Pb-Ag system. (6M)

b) Define degrees of freedom. Give the conditions of triple point for water system and calculate the

degrees of freedom of water system at triple point. (4M)

6. a) Explain the chemistry of vulcanization of rubber

b) Differentiate between addition and condensation polymerization

7. a) Explain Longmuir adsorption isotherm.

b) Write a note on i) Brownian motion ii) Tyndall effect

8. a) Write about Bergius process for the preparation of petrol from coal.

b) Explain proximate analysis of coal.

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