

I B. Tech I Semester Supplementary Examinations, November - 2020**ENGINEERING CHEMISTRY**

(Com. to CE,ME,CSE,PCE,IT,Chem E,Aero E,AME,Min E,PE,Metal E,Textile Engg)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question paper consists of two parts (**Part-A** and **Part-B**)
 2. Answering the question in **Part-A** is Compulsory
 3. Answer any **THREE** Questions from **Part-B**

PART -A

1. a) What are scales? How can they be controlled? (3M)
- b) Define specific conductance and equivalent conductance. Mention their units. (4M)
- c) Explain impressed current cathodic protection. (4M)
- d) Discuss the preparation of PVC and give its applications. (4M)
- e) Write notes on CNG. (3M)
- f) Write a short note on biodegradable polymers. (4M)

PART -B

2. a) Discuss any two moulding techniques of plastics. (8M)
- b) Discuss fluid bed catalytic cracking method for preparation of gasoline. (8M)
3. a) Explain hot lime soda process and give reasons why it is preferred well than cold lime soda process. (8M)
- b) Discuss conductometric titrations of (8M)
 - (i) Strong acid and strong base
 - (ii) Weak acid and weak base
4. a) What is calorific value? Mention its units. Calculate the HCV and LCV of a fuel containing C= 89%, H = 5%, O = 3%, S= 2% and ash 1%. (8M)
- b) Write notes on fiber reinforced plastics. (8M)
5. a) Explain the factors affecting rate of corrosion. (8M)
- b) What is portable water? How is obtained from municipalities. (8M)
6. a) What is Kohlrausch Law? Explain its applications. (8M)
- b) Explain the preparation, properties and applications of Bakelite. (8M)
7. a) What are fullerenes? How are they prepared? Explain their properties. (8M)
- b) Explain about (8M)
 - (i) Electroplating
 - (ii) Hot dipping.

