

I B. Tech I Semester Supplementary Examinations, May/June - 2019
ENGINEERING CHEMISTRY

(Com. to CE,ME,PE,PChem E, Chem E, Aero E, Min E, Auto E, Metal E, BT)

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 **FOUR** Questions from **Part-B**

PART -A

1. a) Give two examples of thermosetting and thermoplastics polymers. (2M)
- b) Write any three characteristics of rocket fuels. (2M)
- c) What is anodic coating? (2M)
- d) Define Meissner's effect. (2M)
- e) What is breakpoint chlorination? (2M)
- f) What is meant by oiliness of lubricant? (2M)
- g) What is tobermonite gel? (2M)

PART -B

2. a) Explain the suspension and emulsion methods of polymerization. (7M)
- b) Discuss the preparation and uses of polyurethane and PVC. (7M)
3. a) Discuss briefly the analysis of flue gases. (7M)
- b) Explain the method for preparation of catalytically cracked petroleum. (7M)
4. a) Discuss the uses of electrochemical series. (7M)
- b) Explain how passivity, humidity, cathodic and anodic ratio and overvoltage effect the rate of corrosion. (7M)
5. a) Explain the applications of CNT's and fullerenes. (7M)
- b) Discuss phase transfer method and super critical method of green synthesis. (7M)
6. a) Explain (i) priming and foaming (ii) boiler corrosion. (7M)
- b) Discuss the internal treatment methods for softening of water. (7M)
7. a) Explain briefly electrical insulators. (7M)
- b) Explain any two mechanisms of lubricants. (7M)

