

**I B. Tech II Semester Supplementary Examinations, December - 2020**  
**ENGINEERING CHEMISTRY-II**  
(Com. to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions  
All Questions carry **Equal** Marks

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1. a) Write the preparation, properties and uses of polystyrene. (8M)  
b) Discuss stereo regular polymers and their significance. (7M)
2. a) Write any two moulding techniques of plastics with neat sketches. (8M)  
b) How are glass reinforced plastics prepared? What are its properties? (7M)
3. a) What is meant by vulcanization? How does it improve the properties of natural rubber? (8M)  
b) What are elastomers? Discuss their applications. (7M)
4. a) Write preparation of carbon nano tubes and discuss their engineering application. (8M)  
b) What are fullerenes? Discuss its properties. (7M)
5. a) Discuss the effect of carbon dioxide, sulphur dioxide and chloride on cement concrete. (7M)  
b) What is Portland cement? Describe its manufacture. (8M)
6. a) Discuss the working of internal combustion engine. (8M)  
b) Explain thermal cracking method for preparation of petrol. (7M)
7. a) Explain the wet theory of corrosion. (7M)  
b) What are metallic coatings? Differentiate anodic and cathodic coatings? (8M)
8. a) Discuss the applications of green chemistry? (7M)  
b) Explain any five principles of green chemistry (8M)