

Code No: R10204

**R10**

**SET-1**

**I B. Tech II Semester Supplementary Examinations, Nov/Dec - 2018**  
**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) Explain the properties and engineering application of polymers. (10M)  
b) Discuss stereo-regular polymers. (5M)
  2. a) Explain the importance of the additives added to the plastics in compounding process with examples. (8M)  
b) How are glass reinforced plastics prepared? Give its properties. (7M)
  3. a) Write the engineering applications of rubber. (7M)  
b) Explain the preparation, properties and uses of BUNA-S. (8M)
  4. a) Write any two preparation methods of carbon nanotubes. (8M)  
b) What are nanomaterials? Explain single walled and multiwalled carbon nanotubes. (7M)
  5. a) What is Portland Cement? Describe the manufacture of cement with a neat labeled figure. (8M)  
b) Differentiate glazed and unglazed ceramics. Write the applications of ceramics. (7M)
  6. a) Explain, working of internal combustion engine. (7M)  
b) Write notes on (8M)  
(i) Octane number  
(ii) Cetane number
  7. a) Explain how (8M)  
(i) Passivity  
(ii) Overvoltage  
(iii) Humidity  
(iv) Impurities in atmosphere affect the rate of corrosion.  
b) Explain the anodic and cathodic protection. (7M)
  8. What is green chemistry? Give its principles and applications. (15M)

