

Code No: R161106

**R16****SET - 1****I B. Tech I Semester Supplementary Examinations, May/June - 2019****APPLIED CHEMISTRY**

(Electrical and Electronics Engineering)

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**
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**PART -A**

1. a) Mention the uses of polycarbonates. (2M)
- b) Explain how water is removed during refining of petroleum. (2M)
- c) Define electroless plating. (2M)
- d) What is meant by lyotropic liquid crystals? (2M)
- e) Mention the % packing fractions of SCC, FCC and BCC. (2M)
- f) Explain the use of penstock and turbines in hydro power plant. (2M)
- g) What is meant by ABCABC packing in crystal? (2M)

**PART -B**

2. a) Explain compression and extrusion moulding with neat sketches. (7M)
- b) Explain the importance of biodegradable polymers. Mention their limitations. (7M)
3. a) What is meant by synthetic petrol? Explain a method for preparation of synthetic petrol. (7M)
- b) Explain in brief (i) biodiesel (ii) power alcohol. (7M)
4. a) Explain Li cells and Zn-air cells. (7M)
- b) Explain the various methods for surface preparation of metallic compounds to inhibit corrosion. (7M)
5. a) Write short notes on TEM and BET methods used for characterizing of nanomaterials. (7M)
- b) Explain superconductors and its types. (7M)
6. a) Explain Junction Transistor and P-N Junction diode as rectifier. (7M)
- b) Explain Hall effect and its applications. (7M)
7. a) Discuss the tidal and wave power. (7M)
- b) Discuss ocean thermal energy conversion. (7M)