

No. of Printed Pages : 03

Roll No. ....

**G-84**

**B. Tech. EXAMINATION, May 2017**

(Seventh Semester)

(B. Scheme) (Re-appear Only)

CHE

CHE-407-B

POLYMER SCIENCE ENGINEERING

*Time : 3 Hours]*

*[Maximum Marks : 75*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(1-06/27) M-G-84

**P.T.O.**

### Unit I

1. (a) Give concept and types of copolymerisation. Discuss rate of copolymerisation. **10**  
(b) Classify different types of Polymers. **5**
2. (a) Discuss Polymer Blends. **5**  
(b) Explain stereospecific Polymerisation in detail. **10**

### Unit II

3. Differentiate Bulk, Emulsion, Suspension and solution Polymerisation techniques. **15**
4. Write short notes on the following : **15**
  - (a) Q-e Scheme
  - (b) Additives
  - (c) Ionic Polymerisation.

### Unit III

5. Explain the following : **15**
  - (a) Membrane Osmometry
  - (b) Vapour Phase Osmometry in detail.

6. What is Rheology ? Discuss Maxwell and Voigt model for Visco elastic behaviour of polymers in detail. **15**

### Unit IV

7. Explain in detail with mechanism and applications : **15**
  - (a) Extrusion Moulding
  - (b) Injection Moulding.
8. (a) Give applications of Polymers in different Engineering Fields. **7**  
(b) Discuss different types of casting for polymer processing. **8**