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**UNIVERSITY OF PETROLEUM
AND ENERGY STUDIES**



End Semester Examination, April, 2017

Program/course: B-Tech/CERP
Subject: Polymer Processing and Technology
Code : CHEG382
No. of page/s: 01

Semester – VIII
Max. Marks : 100
Duration : 3 Hrs

Section-A

Answer all the questions. Each question carries equal marks

5 × 12 = 60

1. Discuss the methods to select sheet temperature range in thermoforming process.
2. Compare Extrusion blow molding with injection blow molding
3. Discuss the functions of various zones in single screw extruder
4. Discuss about various rheological models.
5. The free-radical polymerization reaction is to be carried out in a CSTR.
(a) Plot effluent initiator and monomer concentrations as function of the space-time. 6M
(b) Compare your results for two equal-sized CSTRs in series with one CSTR. The total volume is the same in both cases. 6M

Section-B

Answer all the questions.

2 × 20 = 40

6. (a). Discuss methods to improve uniformity of wall thickness distribution in thermoforming process 10M
(b). Discuss about roto molding process 10M
7. Explain in detail the Ziegler-Natta Process to prepare polyethylene