

ICH-3.3 Polymer Science & Technology MSc Industrial Chemistry (IIIrd Semester)

Time Allowed: 1 hr

Max Marks: 20

All notations have their usual meanings, assume missing data if any.

1. Write short notes on following (3 marks each)

- a. Crystallinity of a polymer.
- b. Primary methods of weight determination.
- c. Flow of polymers is critical to its application.

2. a) Why are polymers so sensitive to temperature? What is the reason that polymers are replacing most conventional materials for fabricating products? (6 marks)

b) Compute the number-average degree of polymerization for polypropylene, given that the number-average molecular weight is 1,000,000 g/mol. Given for C : 12.01 g/mol and H: 1.008 g/mol. (5 marks)