

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 2295001

Roll No.

B.TECH

Regular Theory Examination (Odd Sem-V), 2016-17

POLYMER CHEMISTRY

Time : 3 Hours

Max. Marks : 100

SECTION - A

1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. (10×2=20)

- What is degree of polymerization?
- Define copolymer.
- Write four name of natural polymer.
- What is oligomer?
- In a polymer crystalline region provides... and amorphous region provides...
- What is tensile strength?
- Define plasticizer.
- What is composite polymer?
- Write four example of fibre grade polymer
- What is living polymer?

SECTION - B

2. Attempt any five questions from this section.

(5×10=50)

- Compare between Tg and Tm.
- What is Zeigler-Natta catalyst?
- Explain the mechanism of polymerization of Dacron.
- What is the factor which affects glass transition temp?
- Explain solution polymerization with some example.
- What are the basic requirements of a polymer to behave as fibre?
- Compare between step growth and chain growth polymerization.
- What is the thermosets polymer? Explain polymerization reaction.

SECTION - C

Note : Attempt any two questions from this section.

(2×15=30)

- Discuss chemistry of polymerization of all type of Nylons fibre and their uses.
- Explain principle and working of GPC techniques with neat sketch diagram.
- Discuss kinetics of free radical polymerization and establish rate equation.

