

14. POLYMERS

PREVIOUS EAMCET BITS

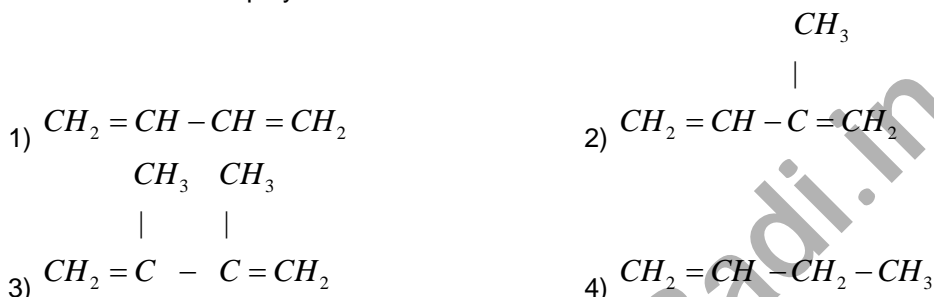
1. If M_w is the weight – average molecular weight and M_n is the number-average molecular weight of a polymer, the poly dispersity index (PDI) of the polymer is given by (2008 E)

1) $\frac{\overline{M}_n}{\overline{M}_w}$ 2) $\frac{\overline{M}_w}{\overline{M}_n}$ 3) $\overline{M}_w \times \overline{M}_n$ 4) $\frac{1}{\overline{M}_w \times \overline{M}_n}$

Ans : 2

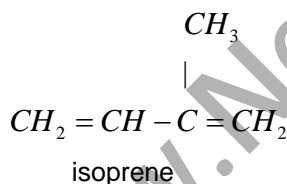
Sol:
$$PDI = \frac{\text{weight - average mol. wt. } \overline{M}_w}{\text{number - average mol. wt. } \overline{M}_n}$$

2. 'Natural rubber' is a polymer of (2008 M)



Ans : 2

Sol: Natural rubber is a polymer of



3. Which of the following is a biodegradable Polymer ? (2007 E)

1) Polythene 2) Bakelite 3) PHBV 4) PVC

Ans : 3

Sol: Poly - α - hydroxybutyrate - Co - β - hydroxyl valerate (PHBV) is a biodegradable polymer.

4. The raw material used in Nylon – 6 is [2007 M]

1. Adipic acid 2. Phthalic acid 3. Ethylene glycol 4. Caprolactum

Ans : 4

Sol: Constituent monomer unit of Nylon-6 is caprolactum

