

## 14. POLYMERS

### PREVIOUS EAMCET BITS

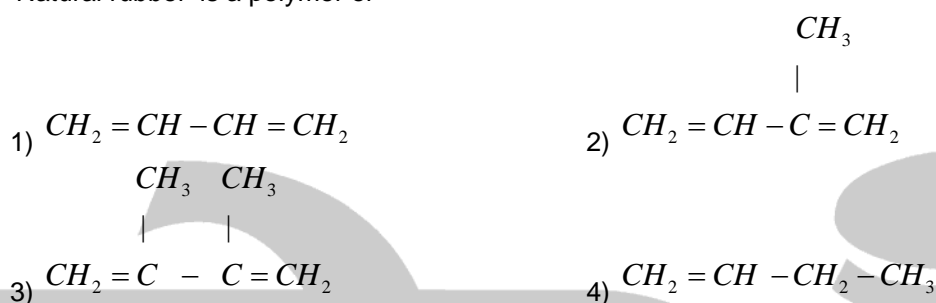
1. If  $M_w$  is the weight – average molecular weight and  $M_n$  is the number-average molecular weight of a polymer, the poly dispersity index (PDI) of the polymer is given by (2008 E)

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

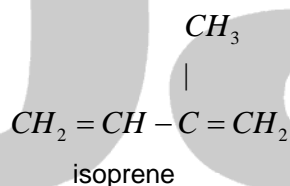
Sol: 
$$PDI = \frac{\text{weight - average mol. wt. } \overline{M}_w}{\text{number - average mol. wt. } \overline{M}_n}$$

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 -  $\rho$  - hydroxybutyrate – Co -  $\beta$  - 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

