

Question 32 (Answer: **D**)

- Break the chain into repeat units of two carbons each.
- $-\text{CH}_2-\text{C}(\text{CH}_3)_2-$ comes from $\text{CH}_2=\text{C}(\text{CH}_3)_2$, methylpropene.
- $-\text{CH}(\text{CH}_3)-\text{CH}_2-$ comes from propene.

Question 39 (Answer: **A**)

- In addition polymerisation the monomer's $\text{C}=\text{C}$ becomes the backbone $\text{C}-\text{C}$ and nothing is lost.
- So restore the double bond between the two backbone carbons of the repeat unit.
- Every side group in the repeat unit must appear unchanged in the monomer.

Question 39 (Answer: **D**)

- Addition polymerisation opens a $\text{C}=\text{C}$, so restore it between the two backbone carbons.
- The repeat unit $-\text{CH}_2-\text{C}(\text{CH}_3)(\text{CO}_2\text{CH}_3)-$ therefore comes from $\text{CH}_2=\text{C}(\text{CH}_3)\text{CO}_2\text{CH}_3$.
- The ester group is carried through unchanged.