HL Paper 1

Which combination of monomers produces a condensation polymer with the repeating unit below?

$$-$$
COOCH₂CH₂O $-$ n

- A. C_6H_5COOH and $HOCH_2CH_2OH$
- B. C_6H_5COOH and CH_3CH_2OH
- C. $C_6H_4(COOH)_2$ and CH_3CH_2OH
- D. $C_6H_4(COOH)_2$ and $HOCH_2CH_2OH$

Which two compounds can form a polyester?

A.

B.

and

C

and

D.

and

Which process can produce a polyester?

- B. Condensation polymerization of a diol and a dicarboxylic acid
- C. Addition polymerization of a diol and dicarboxylic acid
- D. Condensation polymerization of a dicarboxylic acid

Which pairs of compounds can react together to undergo condensation polymerization reactions?

- I. HOOC- C_6H_4 -COOH and C_2H_5OH
- II. $H_2N-(CH_2)_6-NH_2$ and $HOOC-(CH_2)_4-COOH$
- III. H_2N-CH_2-COOH and $H_2N-CH(CH_3)-COOH$
- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II and III