



MINISTERUL EDUCAȚIEI ȘI CERCETĂRII  
 OLIMPIADA NAȚIONALĂ DE CHIMIE - EDIȚIA a 40-a BAIJA MARE 2006  
 Clasa a X-a



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 OLIMPIADA NAȚIONALĂ DE CHIMIE - EDIȚIA a 40-a BAIJA MARE 2006

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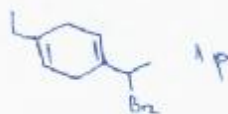
BAREM CORECTARE  
 CLASA a X-a

I.

- 1. e.
  - 2. d.
  - 3. e.
  - 4. d.
  - 5. d.
  - 6. b.
  - 7. e.
  - 8. c.
  - 9. c.
  - 10. e.
- } 20 p

II.A.

- a. 1-triclorometil-3-izopropilbenzen 1 p
- b. cloro-trifenil-metan 1 p
- c. benzoat de *o*-bromofenil 1 p
- benzoat de *p*-bromofenil 1 p
- d. acetat de *o*-clorofenil 1 p
- acetat de *o*-clorofenil 1 p
- e.

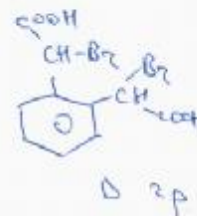
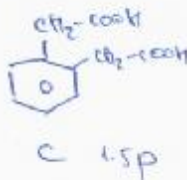
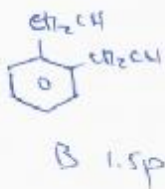
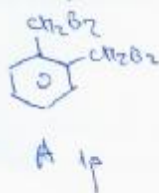


- f. ciclopenteniletan 1 p
- g. monocitiaz bromului la una din legaturile duble 1 p

II.B.

- a. clorurare, sulfonare, nitrare 3 p
- b. metan, acetilena, acetilura monosodica, propina, trimerizare 4 p
- c. 2 moli bromura de benzil, alchilare intermoleculara 3 p
- d. propina - acetona, alcool tertiar, - 1-propanol, acid propionic, acid 2-cloropropionic, acid acrilic sau glicerina, acroleina, acid acrilic 7 p

III.A. 10 p



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E 1p

F 3p

III.B. Ozonificare, glicoxal, metilglicoxal, diacetil in raport molar 3:2:1, concluzii 8p

IV.A. In vasul (1) este retinuta izobutena; 0,2 moli 2p  
 In vasul (2) este retinuta propena; 0,2 moli 2p  
 In vasul (3) se oxidentza etena; 0,3 moli 2p  
 etena : propena : izobutena = 3 : 2 : 2 (raport molar) 1p  
 izobutena, sulfat acid de tertbutil, 2-meril-2-propanol 1,5p  
 propena, sulfat acid de izopropil, 2-propanol 1,5p

IV.B. A<sup>n</sup> C<sub>8</sub>H<sub>12</sub>; N.E.=3, o legatur dubla, 2 cicluri 2,5p

A 4p

B 4p

C 5p

D 2,5p

E. O<sub>3</sub>P

D →  $\begin{matrix} \text{COOH} & \text{COOH} \\ | & | \\ \text{CH}_2 & \text{CH}_2 \\ | & | \\ \text{COOH} & \text{COOH} \end{matrix} + \begin{matrix} \text{COOH} \\ | \\ \text{CH}_2 \\ | \\ \text{CH}_2 \\ | \\ \text{COOH} \end{matrix}$

F G

1p

E →  $\begin{matrix} \text{COOH} \\ | \\ \text{CH}_2 \\ | \\ \text{CH}_2 \\ | \\ \text{COOH} \end{matrix}$

H 1p

$\begin{matrix} \text{COOH} & \text{COOH} \\ | & | \\ \text{CH}_2 & \text{CH}_2 \\ | & | \\ \text{COOH} & \text{COOH} \end{matrix} \xrightarrow{\text{H}_2} \text{CH}_3\text{COOH} + \text{CO}_2$

1p

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