

ΧΗΜΕΙΑ-ΕΡΓΑΣΙΑ 6

ΙΣΟΜΕΡΕΙΑ

1. Για τα παρακάτω ζευγάρια ενώσεων να εξετάσετε αν τα μέλη τους είναι ισομερή και αν είναι να αναφέρετε το είδος της ισομέρειας που εμφανίζουν:

- | | |
|---------------------------------|-----------------------------|
| α. αιθανόλη, αιθυλομεθυλαιθέρας | δ. ακετόνη, προπανάλη |
| β. βουτάνιο, μεθυλοπροπάνιο | ε. προπένιο, μεθυλοπροπένιο |
| γ. 1-βουτανόλη, 2-βουτανόλη | στ. 1-βουτίνιο, 2-βουτίνιο |

2. Γράψτε το συντακτικό τύπο του 3-μεθυλο-1-βουτένιου, καθώς και τους συντακτικούς τύπους των υδρογονανθράκων που εμφανίζουν με αυτό ισομέρεια θέσης και ονομάστε τους κατά IUPAC.

3. Για κάθε μια από τις παρακάτω ενώσεις, να γραφούν οι Σ.Τ. δυο ισομερών :

- | | | |
|--|---|---|
| α. $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ | δ. $\text{CH}_3\text{-CH}_2\text{-O-CH}_3$ | ζ. $\text{CH}\equiv\text{C-CH}_2\text{-CH}_2\text{-CH}_3$ |
| β. $\text{CH}_3\text{-CH}_2\text{-CH=CH}_2$ | ε. $\text{CH}_3\text{-CO-CH}_2\text{-CH}_3$ | η. $\text{CH}_3\text{-CH}_2\text{-CH}_2\text{-NH}_2$ |
| γ. $\text{CH}_3\text{-CH=CH-Br}$ | στ. $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{Cl}$ | θ. $\text{CH}_3\text{-CH}_2\text{-COOH}$ |

4. Να γράψετε όλες τις άκυκλες ανθρακικές αλυσίδες που περιέχουν από τρία έως επτά άτομα άνθρακα.

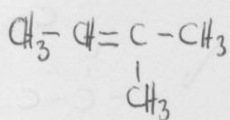
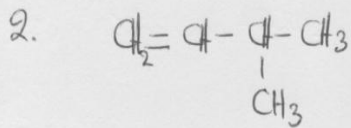
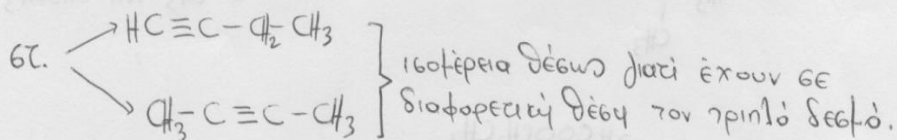
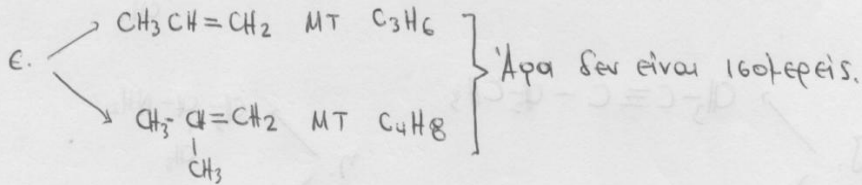
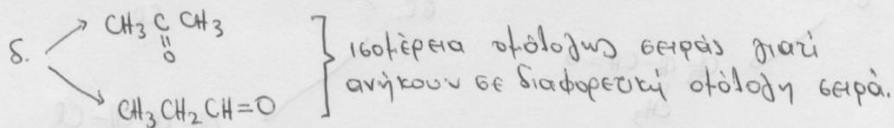
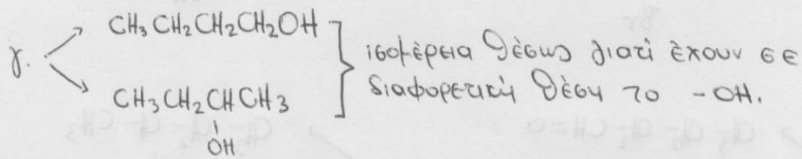
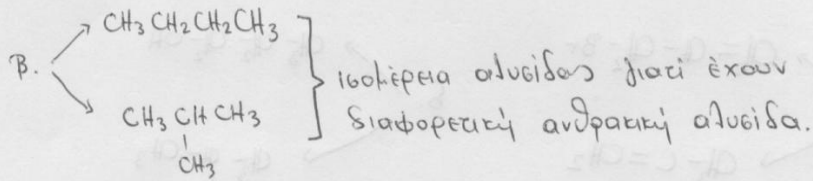
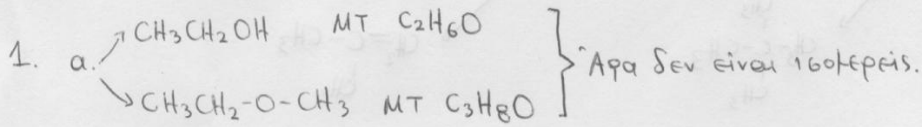
5. Να γραφούν και να ονομαστούν τα άκυκλα συντακτικά ισομερή που αντιστοιχούν στους παρακάτω μοριακούς τύπους :

- | | | |
|------------------------------|--|---------------------------------------|
| α. C_5H_{12} | ε. $\text{C}_5\text{H}_{12}\text{O}$ | θ. $\text{C}_5\text{H}_{11}\text{Br}$ |
| β. C_7H_{16} | στ. $\text{C}_6\text{H}_{12}\text{O}$ | ι. $\text{C}_4\text{H}_{11}\text{N}$ |
| γ. C_6H_{12} | ζ. $\text{C}_5\text{H}_{10}\text{O}_2$ | ια. $\text{C}_5\text{H}_9\text{N}$ |
| δ. C_6H_{10} | η. $\text{C}_6\text{H}_{13}\text{OH}$ | ιβ. $\text{C}_4\text{H}_9\text{COOH}$ |

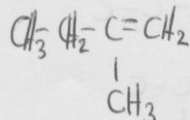
Από το σχολικό βιβλίο οι ασκήσεις **19, 20, 23, 24, 28, 30, 33, 34, 35.**

Εργασία 4 - Άλγεβρα

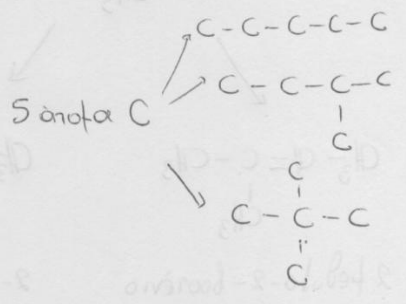
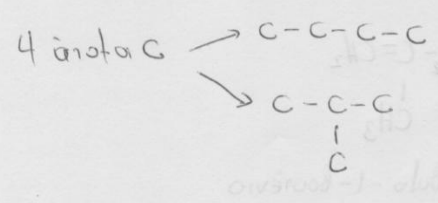
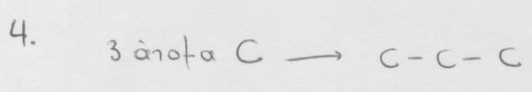
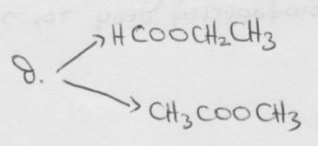
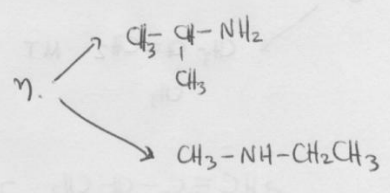
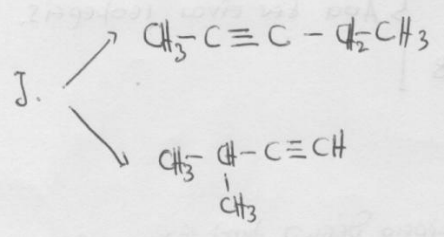
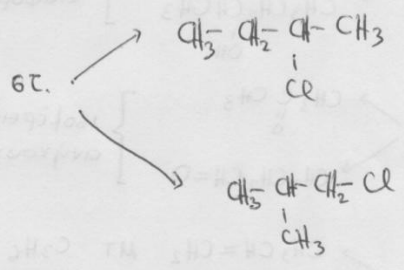
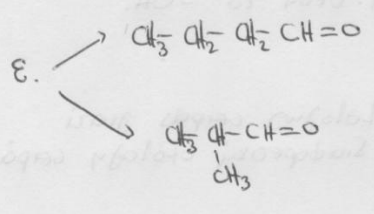
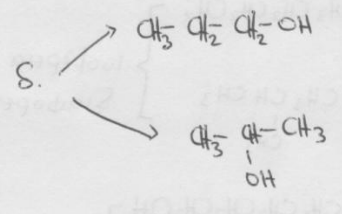
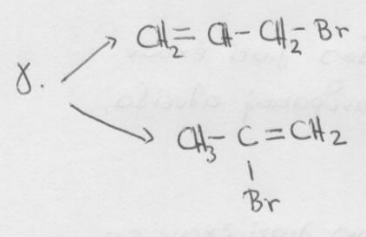
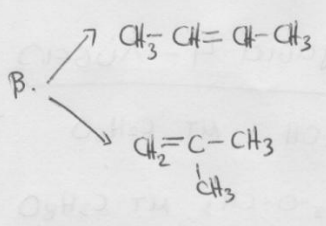
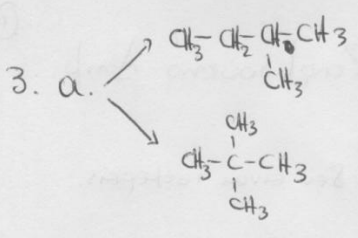
Ζαφεινούτσας Δημ.



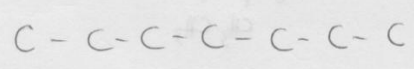
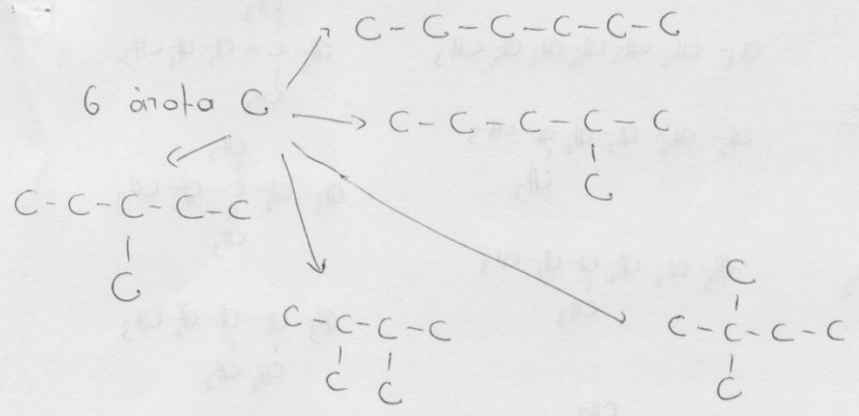
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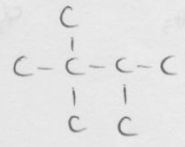
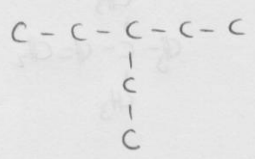
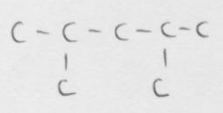
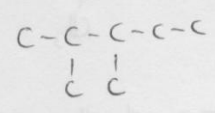
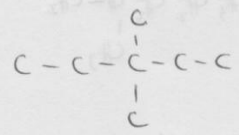
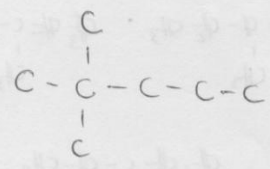
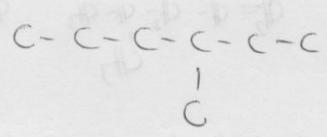
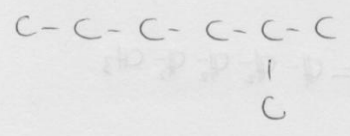
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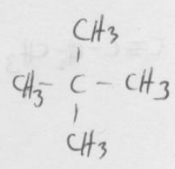
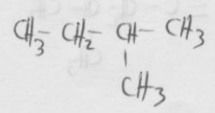
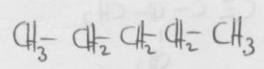
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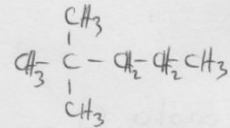
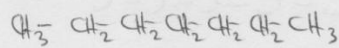
7 atoms C



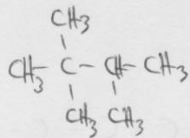
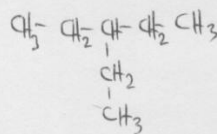
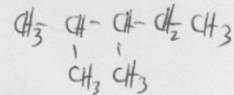
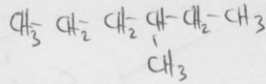
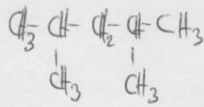
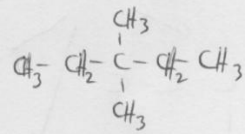
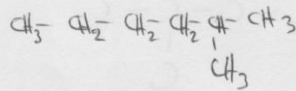
5. a. C_5H_{12}



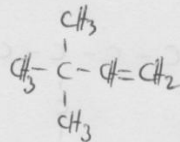
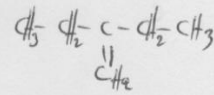
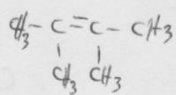
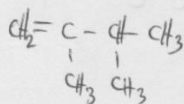
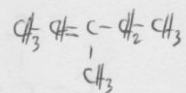
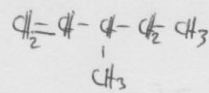
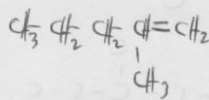
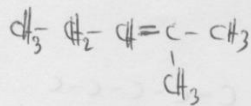
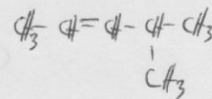
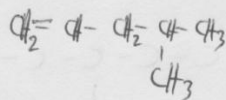
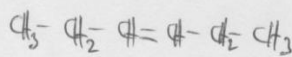
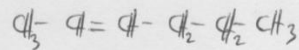
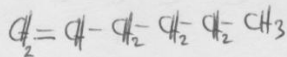
β. C₇H₁₆



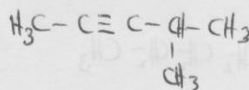
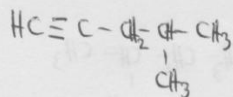
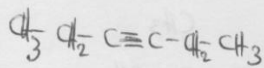
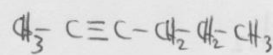
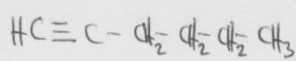
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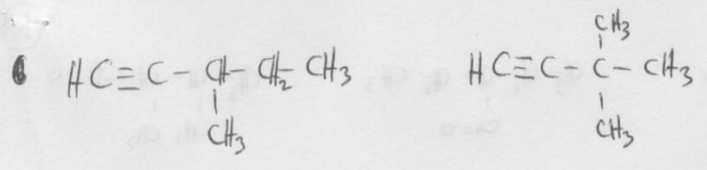


γ. C₆H₁₂

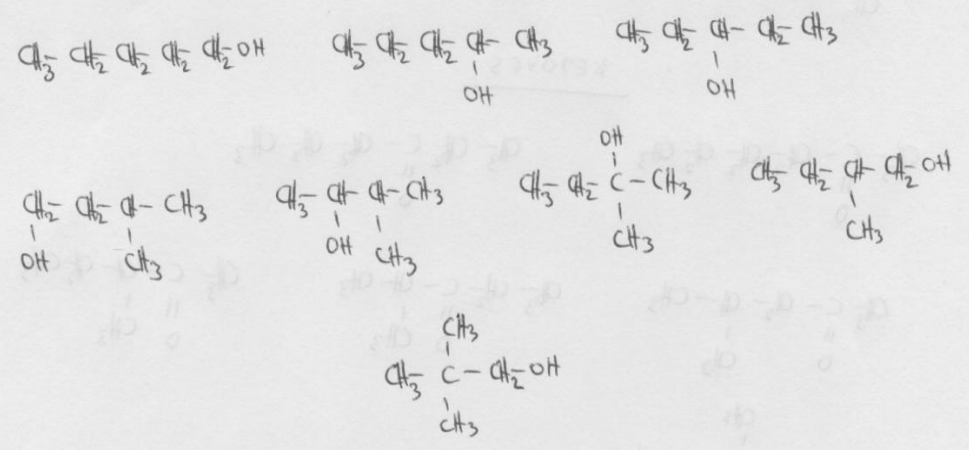


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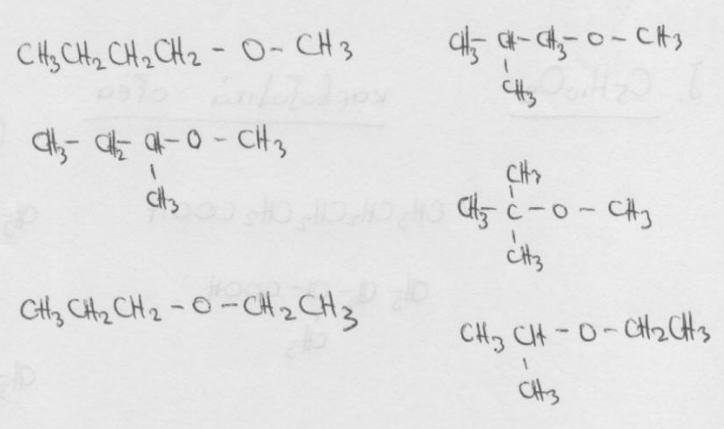


E. C₅H₁₂O αλκοόλες

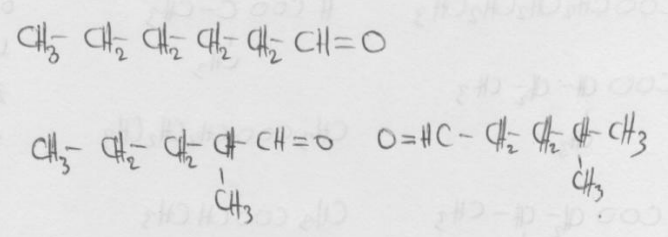


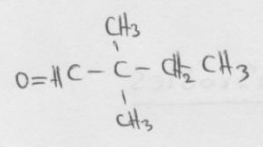
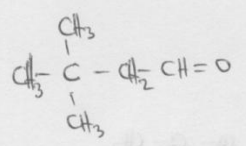
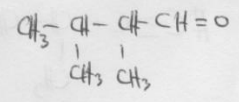
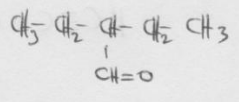
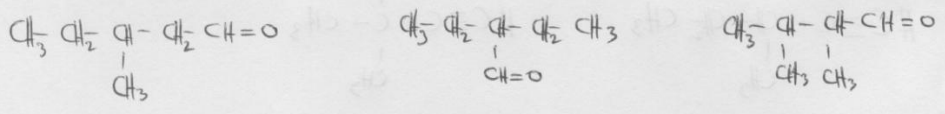
αιθέρες

R-O-R'
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 3 2

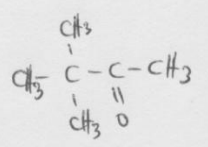
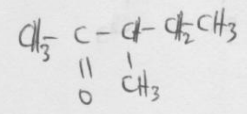
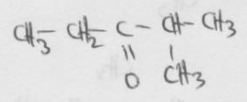
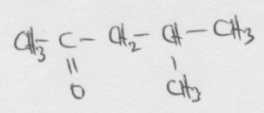
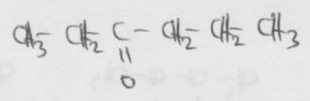
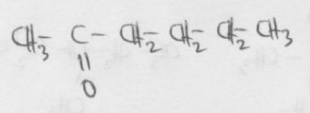


67. C₆H₁₂O αλδεΐδες





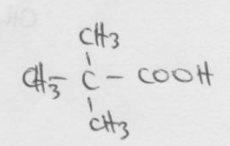
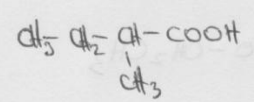
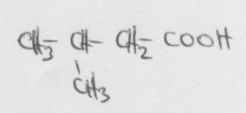
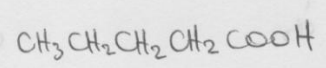
ΚΕΤΟΝΕΣ



J. C₅H₁₀O₂

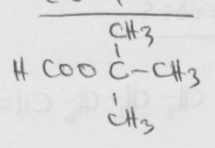
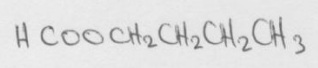
καρβοξυλικά οξέα

R-COOH
(4)

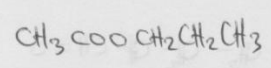
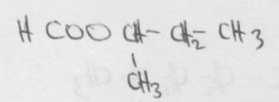


ΕΣΤΕΡΕΣ

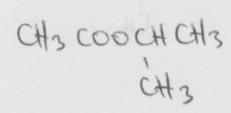
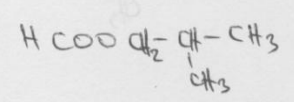
R-COOR'



0 4

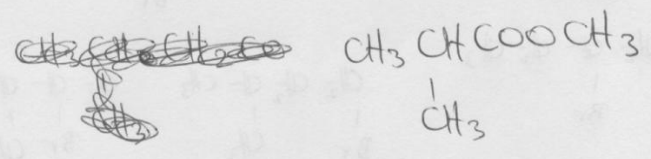


1 3

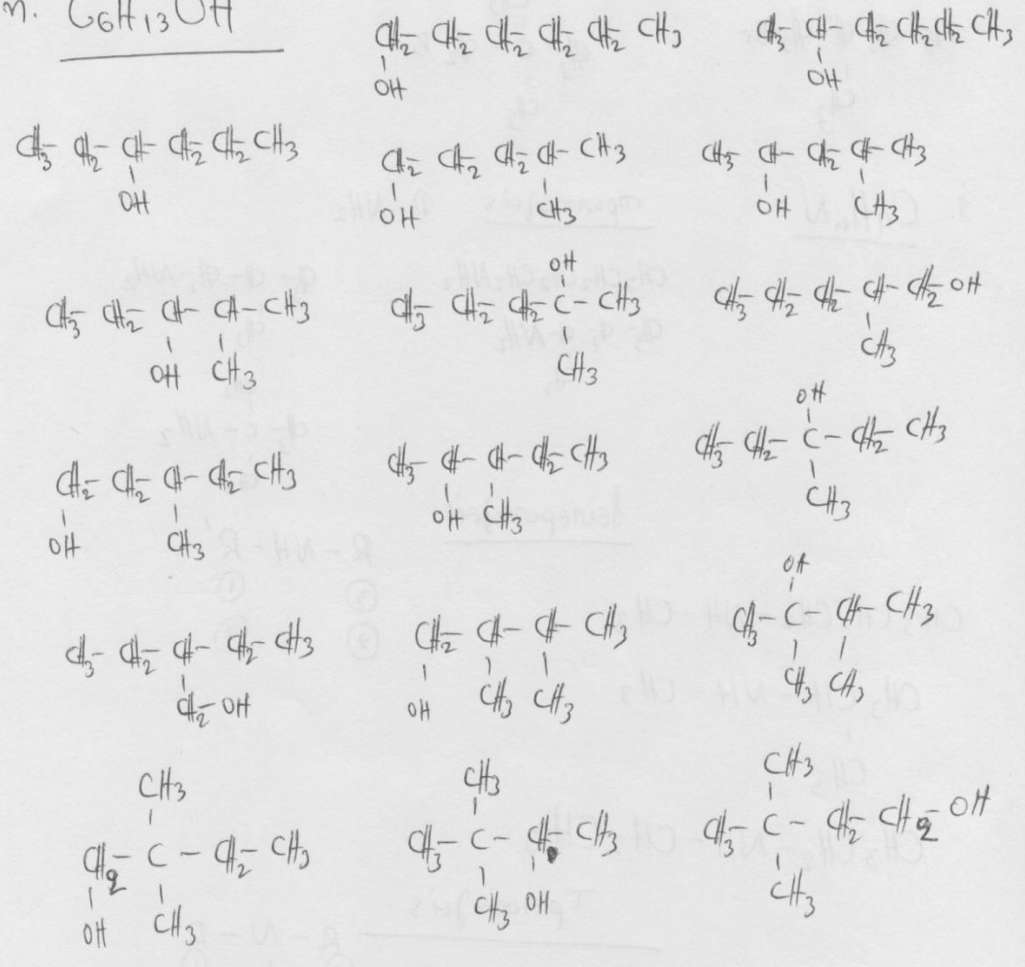


2 2

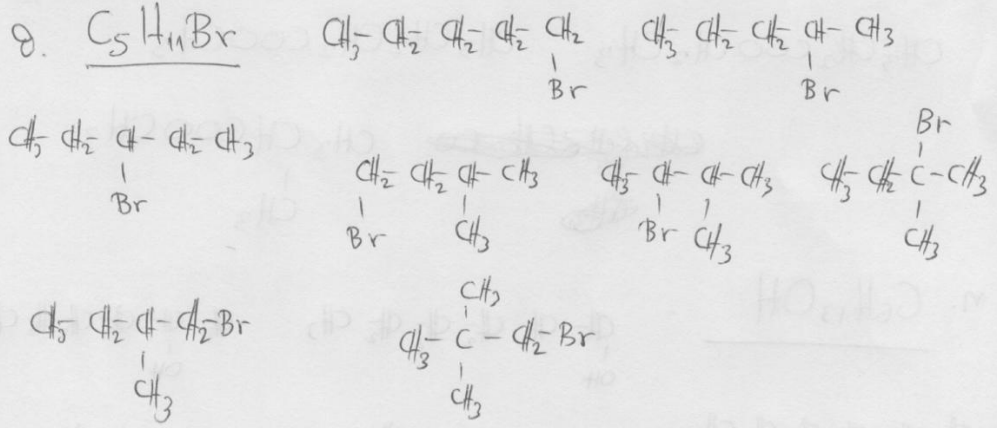
3 1



m. C₆H₁₃OH

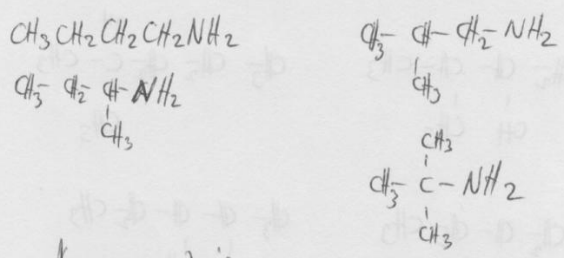


8. C₅H₁₁Br

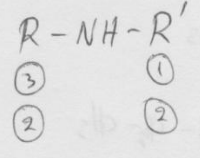
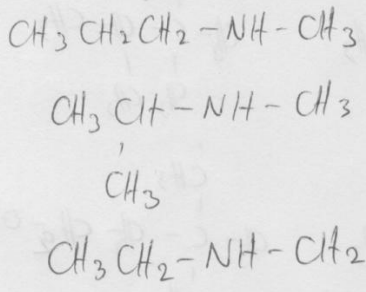


9. C₄H₁₁N

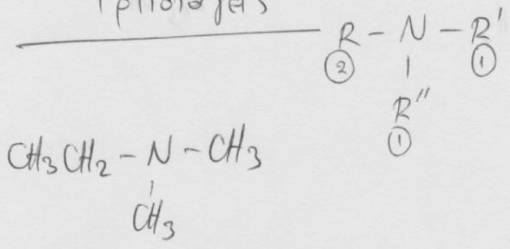
первичные R-NH₂



вторичные



третичные



(9)

