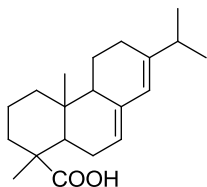


Answer any five questions:

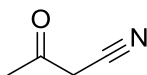
5 X 2 = 10

Q1. Calculate the  $\lambda_{\max}$  value of the following compound:

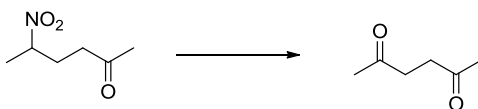
Q2. Explain the following observation:

bond	$\sim \bar{\nu}$ , $\text{cm}^{-1}$
C—H	3000
C—D	2200

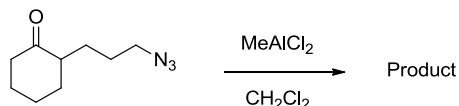
Q3. Synthesize the following compound:



Q4. Carry out the following conversion:



Q5. Identify the following product:



Q6. Mention a technique for the separation of ethylamine and diethylamine.