

Organic Chemistry Quiz-2: 30-Jan-2023. Time: 20 min

Write your roll number on the top of the page. Generally speaking, space available in this single page is expected to be sufficient; however ask for additional page if needed.

1. (10 points) In last couple of lectures, we have been discussing the nucleophilic substitutions at aliphatic carbons (specifically,  $S_N^1$  and  $S_N^2$  mechanisms). Identify the various factors that may effect the mechanism, and write 2/3 sentences on each of the factors
2. (5 points, 4-5 sentences) Illustrate with an example and give explanation on what effect the counter ion to the nucleophile can have on the substitution reactions.