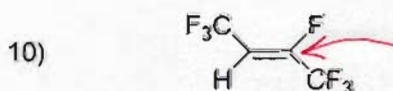
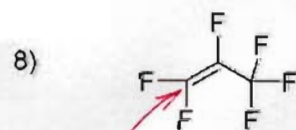
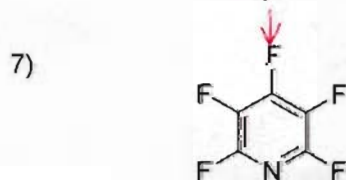


(1-5) Are True / False

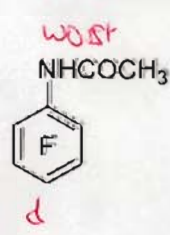
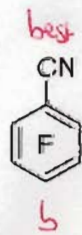
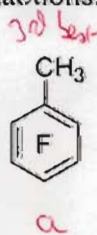
- 1) Perfluoroalkyl groups are electron withdrawing. **T**
- 2) Hexafluorobenzene will undergo Nucleophilic Aromatic Substitution reactions. **T**
- 3) Pentafluoropyridine will undergo Nucleophilic Aromatic Substitution reactions. **T**
- 4) Hexafluorobenzene will undergo Electrophilic Aromatic Substitution reactions. **F**
- 5) Perfluoroalkyl-alkynes are more stable than fluoro-alkynes. **T**

6-10) Indicate with an arrow the preferred site of NUCLEOPHILIC ATTACK in the following molecules.



11-12)

Rank the following aromatics in increasing reactivity towards nucleophilic aromatic substitution reactions.

**d < a < c < b****→ more reactive**

13-20) Give the products:

