

1. What is spectroscopic grade ethanol? How is it produced.

2. Why  $n \rightarrow \pi^*$  transition is a forbidden one?

3. Explain the  $\lambda_{max}$  values.

$CH_3Cl$  — 173 nm

$CH_3Br$  — 204 nm

$CH_3I$  — 258 nm

4. Why ethanol is a good solvent for UV but not for IR?

5. UV absorption bands are generally broad compared to IR - explain.