1. This question about IC History: the past, current and future
   Please read chapter 1 " DIGITAL INTEGRATED CIRCUITS A DESIGN PERSPECTIVE 2 N D E D I T I O N , Jan M. Rabaey, Anantha Chandrakasan, and Borivoje Nikolic   or any source **Summarize in 2 paragraph the history of the past, current and future of IC design**
2. **Please read Chapter 2** DIGITAL INTEGRATED CIRCUITS A DESIGN PERSPECTIVE 2 N D E D I T I O N , Jan M. Rabaey, Anantha Chandrakasan, and Borivoje Nikolic   or any source and summarize in less than two paragraph **The CMOS Manufacturing Process**

3. CMOS Devices: SPICE and deep sub-micron issues
   a. Using any source , explain what do we mean by CMOS ?
   b. What do we need to run SPICE simulations for CMOS? Give an example ?
4. In one or two paragraph , explain the difference between Wafer, Die and Package in terms of design and engineers who can work /design each stage
2. List in not more than one paragraph the IC Component Types ?
3. What do we mean by Doping the Semiconductor? What is the difference between Ntype and Ptype materials?
4. Explain how do we generate a depletion layer and how does that affect the capacitance for both NMOS and PMOS ?
5. Explain all Levels of IC Design?
6. What do we mean by technology file, technology scaling and how does that affect functionality, cost and power of the design?
7. Draw the cross section physical view of the MOS transistor and then Derive the current equation for PMOS and NMOS in all region of operation
8. What is the difference between Wafer, Die and Package ?
9. What do we mean by Doping the Semiconductor? What is the difference between Ntype and Ptype materials?