Unit 2 Assignment

1	Explain the implementation of the basic pipeline for MIPS with a neat diagram showing the data path.
2	Explain the different classes of pipeline hazards with examples in detail.
3	What do you mean by pipeline interlock? How does exception make pipelining hard to implement? Discuss.
4	List pipeline hazards. How will you classify it? Pipelining yields a reduction in the average execution time per instruction. Justify this.
5	Why is pipelining needed? What is the goal of a pipeline designer? Why is it difficult to implement a pipeline?
6	With the help of neat diagram show the implementation of MIPS data path that allows every instruction to be executed in 4 or 5 clk cycles.
7	MIPS is based on a 5 stage RISC pipeline scheme. Give its implementation for all 5 clock cycles.
8	What do you mean by pipeline interlock? Explain in short basic performance issues in pipelining.
9	How RISC is implemented without pipelining? Explain the classic 5 stage pipeline for a RISC processor, with a neat diagram.
10	Draw the neat datapath of a simplified RISC architecture in a pipeline fashion & explain it.