Computer Organisation -Unit -3

1. Explain the following:

a. Instruction cycle

b. Instruction pipelining

2. Explain the design of ALU

3. What are the advantages of pipelining

4. Draw and explain Single Bus Organization of the CPU, showing

all the registers and data paths

5. Explain the design of Multiplier Control unit using Delay Element

Method

6. Explain brief : Emulation

7. Enlist the differences between sequential and combinatorial

ALU.

1. Explain the Data Paths in detail
   1. Fixed point
   2. Floating point
2. What is ALU .Explain with neat diagram
3. What is pipeline processing
4. What is intel Nehalem Organization
5. What are pipelined and Non-pipelined machine cycles
6. Compare the Nehalem chip structure on the basis of core and uncore with neat diagram
7. Draw and explain the full adder in detail
8. Draw 32 bit-ALU and explain in detail
9. Compare and explain the pipeline and nonpipeline structure in detail
10. Explain in detail the data path for fixed point arithmetic
11. Explain in detail the data path for floating point arithmetic
12. Explain the following
13. Adder
14. Substracter
15. Multiplexer
16. Decoder
17. Explain the pipeline control unit
18. What are the various stages used for pipeling. Explain with example
19. Explain the working of ALU using add instruction
20. Explain the pipeline hazards in detail
21. What are the three different types of branch hazards
22. What are the data hazards of the pipeline system