Computer Organization-Super Important questions

-review team TIE-CSE/ISE-3rd Sem

Module-1

1.With a neat diagram explain basic operational concepts of computer.
2.Bus Structures(single and Multiple)**
3.Write a note on: (a) Byte addressability (b) Big-Endian and Little-Endian assignment.
4.What is performance measurement? Discuss the basic performance equation. (Also explain the methods to improve the performance of the computer)
5.What is an addressing mode? Explain different types of addressing mode with ex.

Module-2

1.What is an interrupt? With an ex, illustrate the concept of interrupt.
2.Define BUS arbitration. With a neat diagram, explain different bus arbitration mechanism
3.Explain connection between Processor to Keyword & Processor to Printer with diagrams
4.different approaches of handling interrupts for multiple devices
5.Structure and Operation of USB(do read USB protocols and architecture)

Module-3

1.Explain Associative mapping technique and set associative mapping technique.
2.Explain 'Hit Rate and Miss Penalty'.
3.Define cache memory, explain various types of it with a neat block diagram.(also learn mapping functions)
4.Define ROM. Explain various types of ROMs, and explain flash memories
5.Explain the internal organisation of 2M X 8 asynchronous DRAM(and synchronous DRAMS nodkoli)

Module-4

1.Fast Multiplication and Integer Division(sums practice madrappa)
ok ahead adder and explain (its operation)2.Multiply each of the following pairs of signed 2's complement number using Booth's algorithm. (A=Multiplicand and B=Multiplier)
1. A=010111 and B=110110
2. A=110011 and B=101100
3. A=110101 and B=011011
4. A=001111 and B=001111
3.Perform the operations on 5-bit signed numbers using 2's complement system. Also indicate whether overflow has occurred.
(i) (-10)+(-13) (ii) (-10) – (-13) (iii) (-2) + (-9)
(ii) (-9) + (-7) (ii) (+7) – (-8)
(iii) 5+10 (iii) -14 + 11 (iii) -5 + 7 (iv) -10 + -13
4.With an example, explain the booth's algorithm to multiply 2 signed operands (write steps)

Module-5

1.Describe Multiple Bus Organisation with neat block diagram. (also its advantages)
2.Write down the control sequence for the execution of the instruction Add (R3), R1.
3.Basic concepts of pipelining(wid adv and dis-adv)
4.Explain Hardwired Control unit organisation in a processing unit. (with diagram)
5.What do you mean by micro-instruction? Design Basic Organisation of a micro programmed control unit with diagram.