Microprocessor Important Questions

Unit III Memory Management

1. Explain Segment translation process with neat diagram
2. Explain Page Translation Process with neat diagram

Or

3. Explain address translation process with neat diagram
   (**Note-need to explain both segment and page level translation)**

4. Differentiate between GDTR,LDTR and IDTR
5. Draw and Explain General Descriptor format and List and explain system and non-system descriptor
6. Draw and Explain Segment Selector
7. Explain following instructions
   I) SGDT II)SMSW III)SIDT IV)STR V)SLDT and I) LGDT II) LIDT III)LTR IV)LLDT

Unit IV Protection

1. List down five aspects of protection mechanism
2. Explain Need of protection
3. Draw and explain Protection rings and its levels
4. Explain CPL,DPL,RPL
5. Explain different levels of protection and describe the rules of protection check
6. What is a call gate ? Explain how it is used in calling functions/procedures with the higher privilege levels
7. Elaborate on the concept of combining segment and page level protection in 80386
8. List and Explain various privilege instructions

Unit V Multitasking and Virtual 8086 Mode

1. Compare Real Mode ,Protected and Virtual Mode **(minium 6 strong points)**
2. Draw and Explain Task state Segment of 80386 (Compulsory)
3. Explain the role of task register in multitasking and which instructions are used to modify and read the task register
4. Explain TSS descriptor of 80386 with neat diagram
5. Explain memory management in Virtual 8086 Mode
6. List and explain various features of virtual 8086 mode
7. With the necessary diagram explain entering and leaving the virtual mode of 80386

Unit VI Interrupts Exceptions, and Introduction to Microcontrollers

1. Explain the following exception conditions with examples I)Faults II)Traps III)Aborts
2. With the help of neat diagram explain the structure of IDT in 80386
3. List and elaborate the applications of Microcontrollers.
4. Draw and explain the trap gate and interrupt gate descriptor
5. How interrupts are handled in protection mode explain with diagram
6. Differentiate between Microprocessor and Microcontroller
7. Explain the process of Enabling and Disabling the interrupts
8. Draw and explain the architecture of typical Microcontroller