



Last Date: - 02.08.18

Bloom's Taxonomy Levels – 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

Question no 1, 2, 3 are based on CO502.1 -Understand the internal organization of Microprocessor 8086 and write an assembly language programs using its Instruction set.

Question no 4, 5, 6 are based on CO502.2- Interface different peripheral IC's with 8086 microprocessor by employing interfacing concepts.

Que. No	Question	BTL level
Q.1	Explain addressing modes of 8086 with one example each. Explain following pins: i) DT/R(bar) ii) DEN(bar) ii) MN/MX(bar) iv) READY	L1
Q.2	Interface two chips of 32KB ROM and two chips of 32KB RAM with 8086 in minimum mode.	L3
Q.3	Write 8086 assembly Language program to arrange the data of 10 byte in ascending order.	L3
Q.4	Interface 8 units of 7-segment display with 8086 and WAP to display "YEAR2017".	L3
Q.5	Draw and explain internal block diagram of 8279 PKDC.	L2
Q.6	Interface 8254 PIT with 8086 and write a program to generate a square wave of 1 KHz	L3

Mrs. J. S. Gawai

Subject Teacher



K.D.K. COLLEGE OF ENGINEERING NANDANVAN, NAGPUR-09

DEPARTMENT OF ELECTRONICS ENGINEERING

SESSION 2018-19



Sub: -Microprocessor & Microcontroller

Assignment No-II

Sem.:- V Sem.

Last Date: - 25.08.17

Bloom's Taxonomy Levels – 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

Question no 1, 2, 3 are based on CO502.3 - Design an assembly language program to interface the various peripheral ICs with microprocessor 8086.

Question no 4, 5, 6 are based on CO502.4- Interface math co-processor 8087 with 8086 and write its assembly language program

Que. No	Question	BTL level
Q.1	Draw and explain maximum mode configuration of 8086.	L2
Q.2	Draw and explain internal block diagram of 8254 PIT. Explain any three modes of operation of 8254.	L2
Q.3	Interface three ICs of 8559PIC with 8086 in such a way that one is master and other two are slaves connected at IR3and IR7of master. Write initialization routine for master.	L3
Q.4	Draw and explain block diagram of 8237 DMAC. Also explain different data types of 8087 NDP giving one example each.	L2
Q.5	Draw and explain interfacing of 8087 NDP with 8086.	L2
Q.6	Draw and explain the interfacing of 8253 with 8086 in maximum mode of an address 0040H for counter and write an ALP to generate square wave of period 1ms. The 8086 and 8253 run of 6 MHz and 1.5	L3

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Sub: -Microprocessor & Microcontroller

Assignment No-III

Sem.:- V Sem.

Last Date: - 25.09.17

Bloom's Taxonomy Levels – 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

Question no 1, 2, 3 are based on CO502.5 - Demonstrate the internal organization of microcontroller 8051 and explain the concept of interrupt and its uses.

Question no 4, 5, 6 are based on CO502.6- Design an assembly language program to interface the various peripheral ICs with microcontroller 8051.

Que. No	Question	BTL level
Q.1	Draw & Explain the circuit diagram of 8086 in maximum mode. Also explain the PSW of 8051 microcontroller.	L2
Q.2	Interface 8 kB RAM and 8 kB ROM with 8051 microcontroller such that RAM starts from 0000H whereas ROM starts from C000H.	L3
Q.3	Write an ALP to swap the nibbles of 10 bytes of data present in external RAM from address 2240H store the result at same address.	L3
Q.4	Interface 4 x 4 matrix keyboard with 8051 microcontroller using P0 and P2.	L3
Q.5	Explain the role of timer/ counter of 8051 microcontroller along with its control registers.	L1
Q.6	Interface DAC with 8051 at port 1 and write an ALP to generate saw-tooth wave form of amplitude +10V and time period 3ms.	L3

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