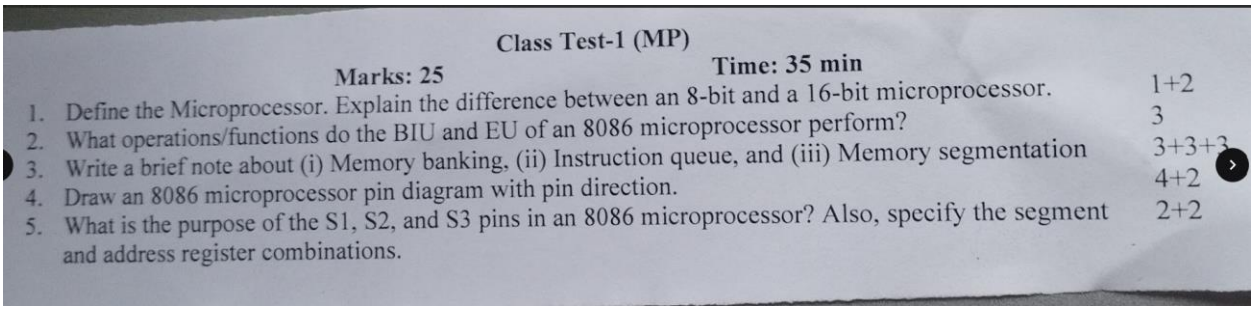
9th Batch:

CT questions:

CT-1:

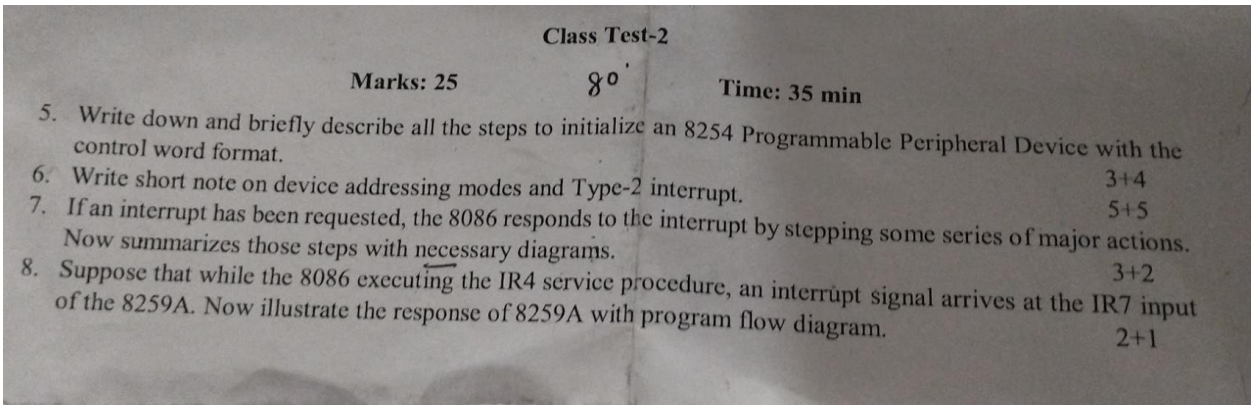


Class Test-1 (MP)

Marks: 25 **Time: 35 min**

1. Define the Microprocessor. Explain the difference between an 8-bit and a 16-bit microprocessor. 1+2
2. What operations/functions do the BIU and EU of an 8086 microprocessor perform? 3
3. Write a brief note about (i) Memory banking, (ii) Instruction queue, and (iii) Memory segmentation 3+3+3
4. Draw an 8086 microprocessor pin diagram with pin direction. 4+2
5. What is the purpose of the S1, S2, and S3 pins in an 8086 microprocessor? Also, specify the segment and address register combinations. 2+2

Ct -2:

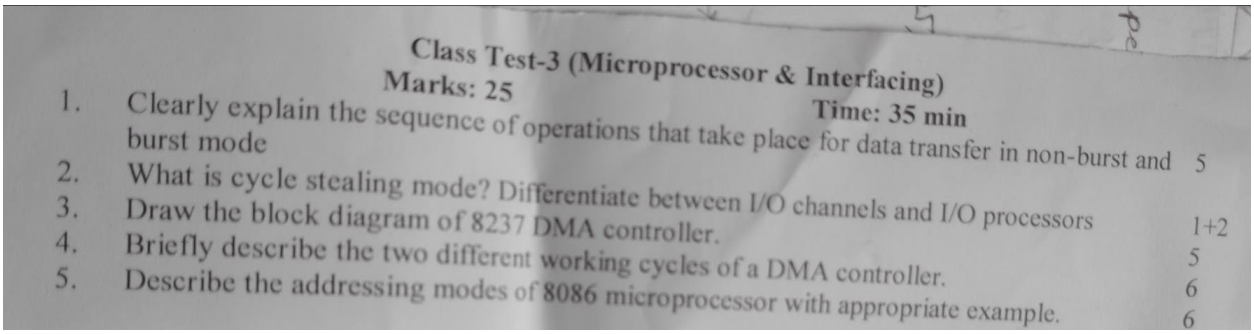


Class Test-2

Marks: 25 80 **Time: 35 min**

5. Write down and briefly describe all the steps to initialize an 8254 Programmable Peripheral Device with the control word format. 3+4
6. Write short note on device addressing modes and Type-2 interrupt. 5+5
7. If an interrupt has been requested, the 8086 responds to the interrupt by stepping some series of major actions. Now summarizes those steps with necessary diagrams. 3+2
8. Suppose that while the 8086 executing the IR4 service procedure, an interrupt signal arrives at the IR7 input of the 8259A. Now illustrate the response of 8259A with program flow diagram. 2+1

CT-3:



Class Test-3 (Microprocessor & Interfacing)

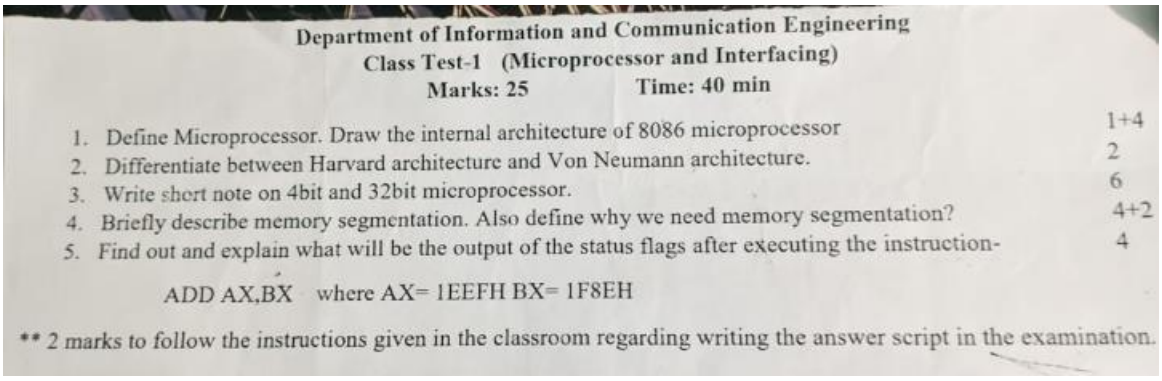
Marks: 25 **Time: 35 min**

1. Clearly explain the sequence of operations that take place for data transfer in non-burst and burst mode 5
2. What is cycle stealing mode? Differentiate between I/O channels and I/O processors 1+2
3. Draw the block diagram of 8237 DMA controller. 5
4. Briefly describe the two different working cycles of a DMA controller. 6
5. Describe the addressing modes of 8086 microprocessor with appropriate example. 6

8TH BATCH:

Ct Questions:

Ct-1:



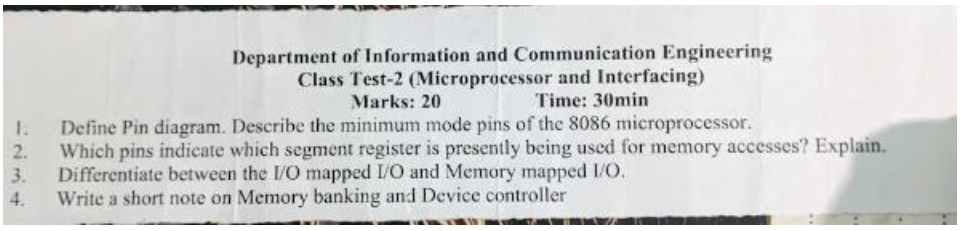
Department of Information and Communication Engineering
Class Test-1 (Microprocessor and Interfacing)
Marks: 25 Time: 40 min

1. Define Microprocessor. Draw the internal architecture of 8086 microprocessor — 1+4
2. Differentiate between Harvard architecture and Von Neumann architecture. — 2
3. Write short note on 4bit and 32bit microprocessor. — 6
4. Briefly describe memory segmentation. Also define why we need memory segmentation? — 4+2
5. Find out and explain what will be the output of the status flags after executing the instruction- — 4

ADD AX,BX where AX= 1EEFH BX= 1F8EH

** 2 marks to follow the instructions given in the classroom regarding writing the answer script in the examination.

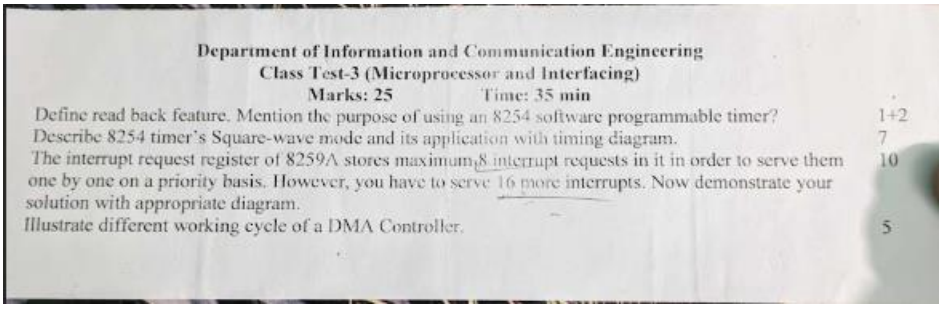
Ct-2:



Department of Information and Communication Engineering
Class Test-2 (Microprocessor and Interfacing)
Marks: 20 Time: 30min

1. Define Pin diagram. Describe the minimum mode pins of the 8086 microprocessor.
2. Which pins indicate which segment register is presently being used for memory accesses? Explain.
3. Differentiate between the I/O mapped I/O and Memory mapped I/O.
4. Write a short note on Memory banking and Device controller

Ct-3:



Department of Information and Communication Engineering
Class Test-3 (Microprocessor and Interfacing)
Marks: 25 Time: 35 min

Define read back feature. Mention the purpose of using an 8254 software programmable timer? — 1+2
Describe 8254 timer's Square-wave mode and its application with timing diagram. — 7
The interrupt request register of 8259A stores maximum 8 interrupt requests in it in order to serve them one by one on a priority basis. However, you have to serve 16 more interrupts. Now demonstrate your solution with appropriate diagram. — 10
Illustrate different working cycle of a DMA Controller. — 5

Semester:

Department of Information and Communication Engineering
Noakhali Science and Technology University

Term Final Examination (2023) **Year: 3rd** **Term: 1st** **Session: 2019-2020**
Course Code: ICE 3101 **Course Title: Microprocessor and Interfacing**
Credits: 3 **Time: 4 hours** **Marks: 70**

Answer any 7 Question sets from the followings: Marks

1. a) What is a microprocessor? What are the essential components used by a Microprocessor? Explain. 1+3
   b) Why microprocessor is viewed as a programmable device? 2
   c) What is the difference between minimum and maximum modes of 8086? How are these modes selected? 2+2

2. a) Describe 8086 Bus Activities During a Read Machine Cycle with timing diagram. 5
   b) What is the purpose of using READY, TEST and LOCK pin in 8086 microprocessor? 3
   c) Differentiate between RISC and CISC. 2

3. a) What is the need of Co-processors? Give an example. 2
   b) How Coprocessor is interface with main processor? 3
   c) Write an 8086 assembly language program that will perform the following operation: 5*AL – 6*BH + (BH/8)⇒CX. 2
   d) Explain 8085 Programming Model. 3

4. a) A code word 1001100101010 is received by DRAM. Is the code word received correctly or not? If not find out which bit is error? Also find out the data word. (Using single-error detecting and correcting Hamming code). 6
   b) Write down the significance of queue in 80086 microprocessor. 2
   c) Write short note on memory banking. 2

5. a) Explain pin functions of the below pins in 8086 microprocessor. 6
      I. Status pin
      II. Interrupt related pin
      III. Queue related pin
   b) What will be the output of the status flags after executing the instruction: ADD AX,BX where AX=FFEFH and BX=1F8FH 5 4

6. a) Describe 8259A Cascading with System Connections diagram. 4
   b) Write down the steps to initialize an 8259A PIC. 3
   c) Describe the response that an 8259A will make if it is servicing an IR4 interrupt and an IR2 interrupt signal occurs at the same time. Assume fixed priority for the IR inputs. Also draw the response diagram. 3

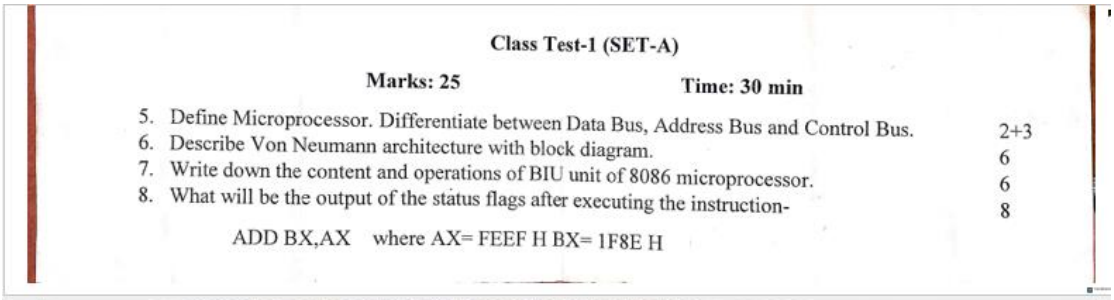
7. a) Describe interrupt-acknowledge machine cycles with timing diagram. 3
   b) Explain Mode-2 of 8254 counter with all the possible scenarios with timing diagram. Also, mention its application. 5
   c) Distinguish between 8253 and 8254 counter. 2

8. a) What is DMA? Explain the DMA based data transfer using DMA controller. 1+2
   b) Briefly explain handshaking or polling with necessary diagrams. 4
   c) Explain the concept of segmented memory. What are its advantages? 1+2

9. a) Write down advantages and disadvantages of I/O Channels. 4
   b) Write short note on I/O processor. 2
   c) Why a Priority Interrupt Controller is needed in 8086 system? 2
   d) Write down the sending order of 8259A initialization command word. 2

7th Batch:

CT questions:

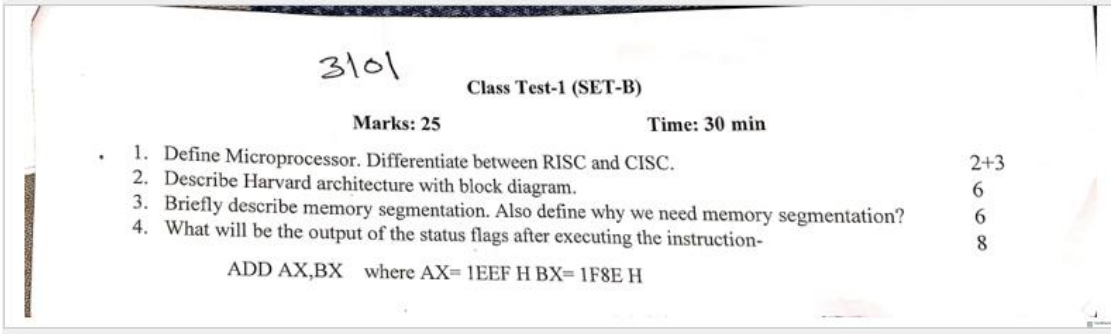


Class Test-1 (SET-A)

Marks: 25 **Time: 30 min**

5. Define Microprocessor. Differentiate between Data Bus, Address Bus and Control Bus. 2+3
6. Describe Von Neumann architecture with block diagram. 6
7. Write down the content and operations of BIU unit of 8086 microprocessor. 6
8. What will be the output of the status flags after executing the instruction- 8

ADD BX,AX where AX= FEEF H BX= 1F8E H



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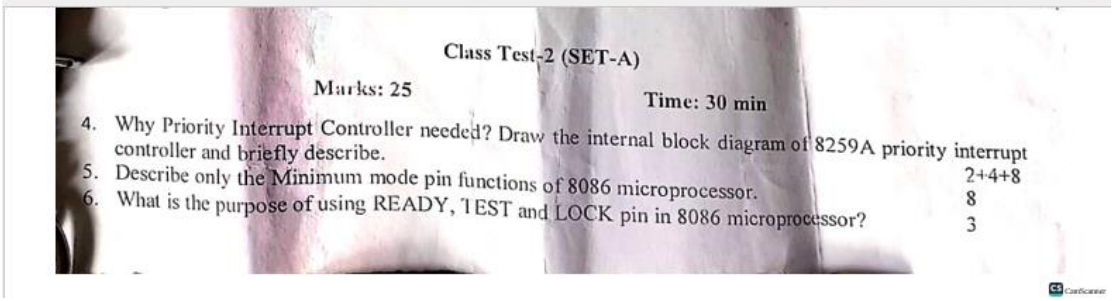
Class Test-1 (SET-B)

Marks: 25 **Time: 30 min**

1. Define Microprocessor. Differentiate between RISC and CISC. 2+3
2. Describe Harvard architecture with block diagram. 6
3. Briefly describe memory segmentation. Also define why we need memory segmentation? 6
4. What will be the output of the status flags after executing the instruction- 8

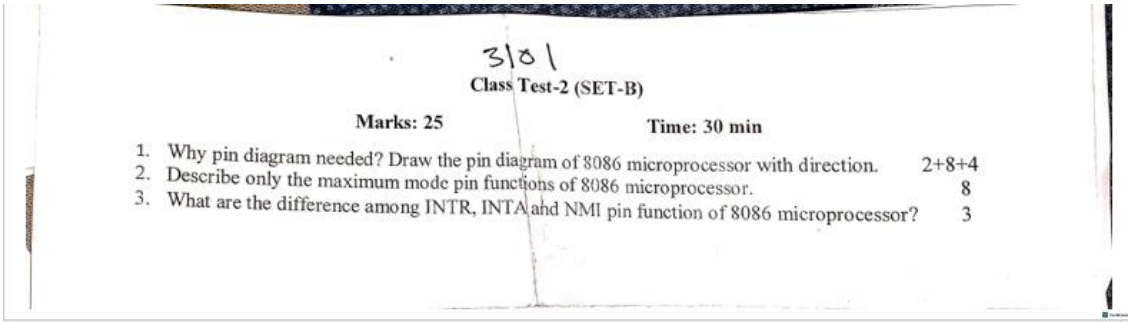
ADD AX,BX where AX= 1EEF H BX= 1F8E H



Class Test-2 (SET-A)

Marks: 25 **Time: 30 min**

4. Why Priority Interrupt Controller needed? Draw the internal block diagram of 8259A priority interrupt controller and briefly describe. 2+4+8
5. Describe only the Minimum mode pin functions of 8086 microprocessor. 8
6. What is the purpose of using READY, TEST and LOCK pin in 8086 microprocessor? 3



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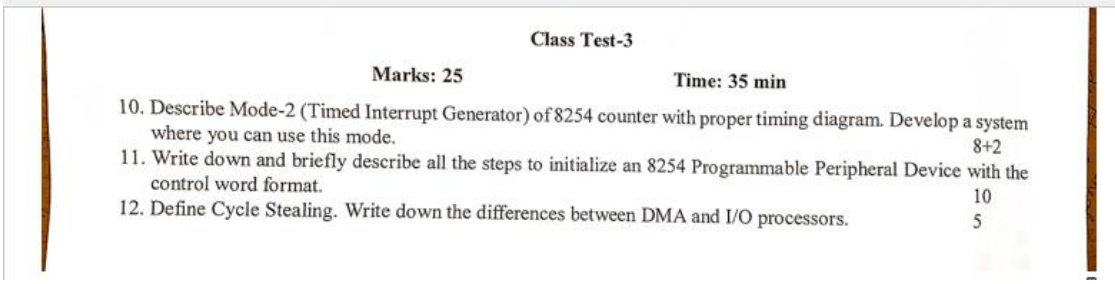
Class Test-2 (SET-B)

Marks: 25 **Time: 30 min**

1. Why pin diagram needed? Draw the pin diagram of 8086 microprocessor with direction. 2+8+4
2. Describe only the maximum mode pin functions of 8086 microprocessor. 8
3. What are the difference among INTR, INTA and NMI pin function of 8086 microprocessor? 3



Class Test-3

Marks: 25 **Time: 35 min**

10. Describe Mode-2 (Timed Interrupt Generator) of 8254 counter with proper timing diagram. Develop a system where you can use this mode. 8+2
11. Write down and briefly describe all the steps to initialize an 8254 Programmable Peripheral Device with the control word format. 10
12. Define Cycle Stealing. Write down the differences between DMA and I/O processors. 5

Semester:

Noakhali Science and Technology University
Department of Information and Communication Engineering
Year 3, Term I Session: 2018-19
Course Code: ICE-3101 Course Title: Microprocessor and Interfacing
Time: 4 hours Total Marks: 70

[Answer any seven set questions from the following nine set questions]

			Marks
1.	a)	Define Microprocessor. Describe Von Neumann architecture with block diagram.	3
	b)	What will happen when a PC is powered on?	2
	c)	Describe "Hardware-Retriggerable One-Shot" mode of 8254 counter and its application.	5
2.	a)	What is the role of clock in Microprocessor?	2
	b)	Explain the function of various flags of 8086 microprocessor.	4
	c)	Describe any five addressing modes of 8086 with suitable examples.	4
3.	a)	Draw and discuss the internal block diagram of 8086.	6
	b)	What is the function of a segment register in 8086?	2
	c)	Write down the difference between 8085 and 8086 microprocessor.	2
4.	a)	What will be the output of the status flags after executing the instruction: SUB AX,BX where AX=FEEFH and BX=1F8EH	5
	b)	What is unknown value for each of the following physical address? (i) A000H : ? = A0123H (ii) ? : CD21H = 32D21H	2
	c)	Explain the difference between the following instructions: MOV AX,2378H and MOV AX,[2378H].	3
5.	a)	A single-error detecting and correcting Hamming code words 1001100111010 is received from DRAM. Is the word received correctly? If not find which bit in error? Also find out the data word.	6
	b)	What are the differences among INTR, INTA and NMI pin function of 8086 microprocessor?	2
	c)	Why the INTR input is automatically disabled as part of the response to an INTR interrupt?	2
6.	a)	Describe the architecture of 8087 with figure.	5
	b)	Describe Status Register, Control Register and Tag Register.	5
7.	a)	What is Direct Memory Access (DMA)? Why is DMA data transfer faster than doing the same data transfer with program instruction?	3
	b)	What are the advantages and disadvantages of DMA controller?	3
	c)	Describe different bus system with diagram in a microcomputer.	4
8.	a)	What is interrupt vector table? Write the working principle of interrupt vector table by a microprocessor.	4
	b)	Describe any two types of 8086 interrupt with example.	4
	c)	Difference between memory mapped I/O and I/O mapped I/O.	4
9.	a)	Write short note on Flash ROM and Shadow RAM.	2
	b)	Describe the maximum mode pin functions of 8086 microprocessor.	4
	c)	What is the purpose of using co-processor?	4

6TH BATCH:

Ct questions:

2nd Class Test: ICE-3101: Microprocessor & Interfacing, Time: 1.0 Hours, Marks: 20

1.	What do you mean by a microprocessor?	2
2.	Define word and instruction.	2
3.	Explain the difference between the machine language and the assembly language of the 8085 microprocessor.	3
4.	Differentiate between accumulator based microprocessor and general purpose register based microprocessor.	3
5.	Explain the internal architecture of 8086 microprocessor.	5
6.	Explain the addressing modes of 8086 microprocessor.	5

Course Code: ICE 3101, Course Title: Microprocessor
Time: 40 min, Total Marks: 20, CT-01

1. Draw the block diagram of 8086 microprocessor. Describe the functions of BIU of the 8086 microprocessor 5
2. What is addressing mode? Determine the addressing modes for the following instructions: 5
   i) MOV CH, 8
   ii) MOV AX, DS:START
   iii) MOV [SI], AL
   iv) MOV SI, BYTEPTR[BP+2][DI]
3. Assume that DS=1120, SI=2498 and AX=53EF. Show the contents of memory locations after the execution of MOV [SI], AX. 3
4. Describe the difference between instructions MOV AX, 2437H and MOV AX, [2437H]? 2
5. Draw the diagram of flag register of 8086 & mention the function of AF, SF, IF, DF? 5

Class Test-3
Course Code: ICE-3101, Time: 35 minutes, Marks: 12.5
Course Title: Microprocessor and Interfacing

Answer all the following questions		Marks
1.	Describe the DMA data transfer process.	4.5
2.	What is channel? Describe DMA channel.	4
3.	Describe the architecture of 8087 with figure.	4

Semester: Online Question

5th Batch:

Noakhali Science and Technology University
Department of Information and Communication Engineering
Final Examination- 2019
Year 3, Term 1 Session: 2016-17 B.Sc. (Engg.)

Course Code: ICE 3101 Course Title: Microprocessor and Interfacing

Time: 4 hours **Total Marks: 70**

Answer any seven of the following nine questions.

1.	a)	Define microprocessor. Write down the difference between microprocessor and micro controller.	4
	b)	Differentiate between 8085 and 8086 microprocessor.	3
	c)	How does the microprocessor work?	3
2.	a)	Draw & discuss the internal block diagram of 8086.	6
	b)	What are the flags in 8086?	2
	c)	Write down the difference between 8085 and 8086 microprocessor.	2
3.	a)	Explain the function of opcode pre-fetch queue in 8086.	3
	b)	List the various addressing modes present in 8086. Describe direct and indexed addressing mode with example.	4

	c)	Describe what happens to the status flags as the sequence of instructions that follows is executed in 8086 microprocessor architecture. Assume that flags ZF, SF, CF, AF, OF and PF are initially reset.
		MOV AX, 1234H
		MOV BX, 0ABCDH
		CMP AX, BX.
			3

4.	a)	Write an assembly language program to add two numbers of 8 bit data stored in memory locations 4200H and 4201H and store the result in 4202H and 4203H.	3
	b)	Describe arithmetic and program execution transfer instruction of 8086 microprocessor.	5
	c)	What is MIN/MAX mode operation of an 8086 microprocessor?	2
5.	a)	Explain different types of registers in 8086 microprocessor arch.	6
	b)	What are the features of 8086?	2
	c)	Write an 8086 assembly language program that will perform the following operation: 5*AL – 6*BH + (BH/8) → CX.	2
6.	a)	What is the maximum memory size that can be addressed by 8086?	1
	b)	Explain the working procedure of 8255A (PPI) with block diagram.	6
	c)	Differentiate between hardware and software interrupt.	3
7.	a)	Explain the block diagram of the 7-Segment Display interface and its operations.	5
	b)	Discuss how memory chips and I/O devices are interfaced to a microprocessor.	3
	c)	Differentiate between Call and JMP instructions.	2
8.	a)	Write the features of 8251 memory interface.	2
	b)	Construct a formula for calculating interfacing memory chip capacity and size of memory locations.	2
	c)	For interface two 8k×8 EPROM and two 8k×8 RAM chip with microprocessor 8086, draw interface circuit selecting suitable address maps.	
9.	a)	Differentiate between synchronous and asynchronous data transmission.	
	b)	Define DMA. Why need DMA?	
	c)	What is channel? Describe DMA channel.	

4th Batch:

Noakhali Science and Technology University

Department of Information and Communication Engineering

Year 3, Term 1 Session:2015-16,

B.Sc. (Engg.), Final Examination- 2018

Course Code: ICE 3101 Course Title: Microprocessor and Interfacing

Time: 4 hours **Total Marks: 70**

[Answer any seven of the following questions. Figures in the right margin indicate full marks]

1. a) Define microprocessor? What are the essential elements of microcomputer? 2
   b) Why microprocessor is viewed as a programmable device? 2
   c) How does the microprocessor work? 3
   d) What is Machine cycle ,Instruction cycle, fetch and execute cycle? 3

2. a) Draw & discuss the internal block diagram of 8086. 4
   b) How clock signal is generated in 8086? What is the maximum internal clock frequency of 8086? 3
   c) What is addressing mode? Determine the addressing modes for the following instructions: 3
      i) MOV CH, 8 ← ~~Direct~~ Immediate.
      ii) MOV AX, DS:START ← ~~Indirect~~ Reg.
      iii) MOV [SI], AL ← Reg. Indirect

3. a) Explain about PUSH, POP and AAA instructions with example. 3
   b) How the physical address is obtained from a logical address. 2
   c) Calculate the physical address of the following: 2
      i. Segment base value B186h, offset 0128h
      ii. ES: 882Eh, DI: 0442h
   d) Describe basic 8086 bus cycle. 3

4. a) What are the differences between 8085 and 8086 microprocessor? 3
   b) What happens in 8086 processor, when 2
      i). Overflow of sum occurs during addition of signed numbers.
      ii). Overflow of quotient occurs during division operation.
   c) Give the contents of the flag register after execution of addition 65D1 and 2359 2
   d) Assume that DS=1120, SI=2498 and AX=53EF. Show the contents of memory locations after the execution of MOV [SI], AX. 3

5. a) What is the purpose of interrupt. Draw interrupt processing flow. 3
   b) What is the difference between maskable interrupt and non-maskable interrupt 2
   c) What do you mean by pipelined architecture? How is it implemented in 8086? 1+4

6. a) Draw the internal organization of interrupt controller 8259A. 3
   b) What is Master and Slave 8259A ? How does does the master-slave concept work? 3
   c) What is DMA Controller? Draw the architecture of 8237 and explain it. 4

7. a) Define coprocessor. Why need or used coprocessor? 1+1
   b) Describe the operating modes of 8255A. 3
   c) How microprocessor interface with memory and I/O? 2

d) Explain the function of inservice register, masking register and interrupt request register of 8259? 3

8. a) Draw the block diagram of 8255A Programmable Peripheral Interface. 3
b) Write some feature of 8254 programmarble Interval Timer. 2
c) Differentiate between 8253 and 8254 programmarble Interval Timer. 3
d) Define poling method and pipeline method. 2

9. a) Describe the operating modes of 8254. 3
b) What do you mean by assembly language? Write down the advantage & disadvantage of assembly language over High level language? 3
c) Draw a microcomputer system with DMA controller and explain its operation 4

3rd Batch:

Department of Information and Communication Engineering
Noakhali Science and Technology University
Term Final Examination, 2017
Year: 3, Term: I, Session: 2014-2015

Course Code: ICE-3101 Course Title: Microprocessor and Interfacing

Time: 4 Hours Marks: 70

Answer any seven of the following questions.

			Marks
1.	(a)	Define microprocessor. Describe the evolution of microprocessor.	1+3
	(b)	What does it mean data bus of a microprocessor 8-bit, 16-bit, and 32-bit?	2
	(c)	What is the difference between microprocessor and microcontroller?	2
	(d)	Differentiate between 8085 and 8086 microprocessor.	2
2.	(a)	Draw the internal block diagram of 8086 & describe the execution unit ~~(BIU)~~.	4
	(b)	What is addressing mode? Determine the addressing modes for the following instructions:	4
		i) MOV CH, 8 — Immediate	
		ii) MOV AX, DS:START — Direct	
		iii) MOV [SI], AL — Register indirect	
		iv) MOV ~~SI~~, BYTEPTR[BP+2][DI] — Str	
	(c)	Make a comparison among instructions MOV AX, 2437H and MOV AX, [2437H].	2
3.	(a)	What is the difference between a physical address and a logical address?	2
	(b)	In 8086 processor the code segment contains 4000H and instruction pointer contains 9F20H. Find the memory location addressed by the processor.	3
	(c)	Assume that DS=1120, SI=2498 and AX=53EF. Show the contents of memory locations after the execution of MOV [SI], AX.	3
	(d)	Write down some general characteristics of 8086 microprocessor?	2
4.	(a)	Write the goal for instruction set design.	1
	(b)	Explain about XLAT, PUSH, POP and XCHG instructions.	2
	(c)	Describe INTEL predifined interrupt of 8086.	3
	(d)	Explain the function of IO/M, READY, HOLD and HLDA in 8085.	4
5.	(a)	Write an 8086 assembly language program that will perform the following operation: 5*AL – 6*BH + (BH/8) → CX.	3
	(b)	List some of the features of INTEL 8259A (programmable interrupt controller)	2
	(c)	What are master and slave 8259A? How does the master-slave concept work?	2+3
6.	(a)	What is function of the accumulator?	2
	(b)	What is bus? Explain the bus structure of the 8085 microprocessor.	1+5
	(c)	Make a list of the features of 8085.	2
7.	(a)	What do you mean by pipelined architecture? How is it implemented in 8086?	1+4
	(b)	What do you mean by addressing mode? Explain all addressing modes of 8086 with example.	1+4
8.	(a)	Define DNA. Why need DMA?	1+1
	(b)	What is channel? Describe DMA channel.	1+3
	(c)	What is channel property? Explain the priority between DMA channels.	1+1
	(d)	Describe the function of different DMA trigger.	2
9.	(a)	Define opcode and operand.	2
	(b)	What do you mean by assembly language? Write down the advantage & disadvantage of assembly language over High level language?	1+3
	(c)	Write an assembly code that will take input two integers and print its result if less than 10.	4

2nd Batch:

Noakhali Science and Technology University
Term Final Exam, 2016
Course Code: ICE-3101 Course Title: Microprocessor and Interfacing
Year: 3rd Term : 1st Session: 2013-2014
Time: 4 hours Marks: 70

(Answer any seven from the following)

		marks
a.	Define microprocessor? What are the essential elements of microcomputer?	1+2
b.	What is the difference between microprocessor and microcomputer?	2
c.	Describe the DMA operation of Intel 8085 microprocessor	3
d.	How does the microprocessor work?	2
2. a.	Explain the programming model of 8085 microprocessor .	5
b.	How does a microprocessor differentiate between data and instruction code?	3
c.	Write the machine code for the instruction JMP 2050H for 8085 microprocessor.	2
3. a.	What is flag? Why are the program counter and the stack pointer 16-bit registers?	2
b.	What is meant by a bus? Explain the bus structure of the 8085 microprocessor.	1+5
c.	What is the function of program counter in 8085 microprocessor?	2
4. a.	If the memory chip size is 256×4 bits, how many chips are required to make up 1K bytes of memory?	3
b.	Give the taxonomy of memory.	3
c.	Calculate the address lines required for a 16K-byte memory chip for 8085 microprocessor	2
d.	How to generate read/write control signals for memory and I/O? Explain it.	2
5. a.	Illustrate the steps of data flow when the instruction code (8AH – MOV D,A), stored in location 2006H, is being fetched.	4
b.	Explain the demultiplexing process of the bus $AD_7 - AD_0$.	4
c.	How the physical address is obtained from a logical address.	2
6. a.	Differentiate between accumulator based microprocessor and general purpose register based microprocessor.	2
b.	Draw the block diagram of 8086 microprocessor. Describe the functions of BIU of the 8086 microprocessor	2+4
c.	Briefly describe the arithmetic instructions of 8086 microprocessor.	2
7. a.	What is the purpose of the DF and SF bits in the FLAG register?	2
b.	Explain the addressing modes of 8086 microprocessor.	5
c.	Write a 8086 assembly program to add two 128-bit numbers stored in memory in consecutive locations.	3
8. a.	Discuss the address bus and data bus concepts of 8086 microprocessor.	4
b.	What is wrong with the MOV BL, CX instruction?	2
c.	Write an 8086 assembly language program that will perform the following operation: $5*AL - 6*BH + (BH/8) \Rightarrow CX$.	4
9. a.	Describe the user-defined hardware interrupts of 8086 microprocessor.	5
b	Describe the DMA data transfer process.	5

1st Batch:

Department of Information and Communication Engineering

3rd Year 1st Term Session: 2012-13

Course Code: ICT 3101 Course Title: Microprocessor and Interfacing

Time: 4 hours Total Marks: 70

[Answer any seven of the following Questions]

1.	a)	What is a microprocessor?	2
	b)	What is the difference between microprocessor and microcomputer?	3
	c)	How does the microprocessor work?	3
	d)	What are the advantages of an assembly language in comparison with high-level languages?	2
2.	a)	Discuss about the three memory mapping techniques.	5
	b)	Draw the internal architecture and the timing diagram of 80486.	5
3.	a)	What is the function of the accumulator?	2
	b)	What is bus? Explain the bus structure of the 8085 microprocessor.	1+5
	c)	Calculate the address lines required for a 16K-byte memory chip for 8085 microprocessor.	2
4.	a)	What is the purpose of the TF and IF bits in the FLAG register?	2
	b)	Explain the addressing modes of 8086 microprocessor.	4
	c)	Write the techniques for designing the main memory.	4
5.	a)	What is instruction set? Describe about the data transfer instructions with example.	1+4
	b)	What is wrong with the MOV BL, CX instruction?	2
	c)	Write an 8086 assembly language program that will perform the following operation: $5*AL - 6*BH + (BH/8) \Rightarrow CX$.	3
6.	a)	Define coprocessor. Why need or used coprocessor?	1+1
	b)	How Coprocessor is interfaced with main processor?	3
	c)	Describe the architecture of 8087 with figure.	5
7.	a)	Explain RIM, SIM instruction.	3
	b)	Explain INTR instruction in detail and give the difference from other hardware interrupts.	4
	c)	Explain the meaning of pending interrupts.	3
8.	a)	Describe Status Register, Control Register and Tag Register.	5
	b)	Describe the DMA data transfer process.	5
9.	a)	Explain the parallel IO mode of 8255.	3
	b)	Explain in detail the interfacing of an input device with microprocessor 8085.	4
	c)	Design an interfacing circuit to read data from an A/D converter, using the 8255A in the memory – mapped I/O.	3