END SEMESTER / RETEST EXAMINATION (Old Syllabus)
Semester: 3rd
Subject code: CO-305
Subject: Computer Architecture and Organization
Full Marks: 70 (Part A- 25 + Part B- 45)
Duration: 3 hours.
Instructions:
- **Questions on Part A are compulsory.**
- **Answer any 5 (five) questions from Part B**

		PART-A	
		MARK-25	
Question 1	Choose the correct answer		1x10=10
a)	In computer, subtraction is generally carried out by (A) 9's complement (B) 10's complement (C) 1's complement (D) 2's complement		
b)	Actual execution of instruction in a computer takes place in (A) ALU (B) Control Unit (C) Storage unit (D) None of the above		
c)	The instructions like MOV or ADD are called as A) OP-Code B) Operators C) Command D) None of the mentioned		
d)	RAM is not suitable for permanent storage because it is (A) too slow (B) unreliable (C) it is volatile (D) too bulky		
e)	Status registers are also called (A) Memory Address Register (B) Flags (C) Instruction Register (D) Program Counter		
f)	ALU is A) Arithmetic Logic Unit B). Array Logic Unit C) Application Logic Unit D) None of above		
g)	Which of the following is a part of the Central Processing Unit? A)Printer B) Key board C) Mouse D) Control unit		
h)	Which of the following is used as a primary memory device (A) Magnetic Tape (B) PROM (C) Floppy Disk (D) Hard Disk		
i)	DMA stand for A) Distinct Memory Access B) Direct Memory Access C) Direct Module Access D) Direct Memory Allocation		
j)	VDU is a A) Keyboard B) Mouse C) Monitor D) Mother board		
Q 2	**State True or False of the following**		1X 10=10

a)	ASCII is a character code.	
b)	Intel 8085 is a 32 bit microprocessor.	
c)	Assembly language makes use of mnemonics.	
d)	Status registers are also called Flags.	
e)	Nibble is a group of 4 bits.	
f)	Hard disk is a main memory device.	
g)	To reduce the memory access time we generally make use of Caches.	
h)	In immediate addressing, operand is in the instruction itself.	
i)	In memory-mapped I/O, the I/O devices and the memory does not share the same address space.	
j)	In polling processor checks the status flag.	
Q 3	**Fill up the blanks.**	1X 5=5
a)	1 Megabyte is equal to _____KB	
b)	Full form of MAR is _____	
c)	Give the BCD representation of 456 is _____	
d)	In memory hierarchy _____are at the top level.	
e)	Scanner is a _____ device	

Instructions: Answer any 5 (five) questions from Part B

PART B

MARK-45

4 a)	Find the 2's compliment form (Use 8 bit) of the number 1110 .	3
b)	Draw the block diagram of 8085 microprocessor.	6
5 a)	Describe briefly the different addressing modes available in 8085/8086 microprocessor.	5
b)	Briefly explain about static RAM and dynamic RAM.	4
6 a)	Define 1-byte instructions and two byte instructions with examples.	4

b)	Write briefly about Hardwired control unit.		5
7 a)	Write notes on maskable and non maskable interrupts.		4
b)	What do you mean by Memory Hierarchy? Explain briefly.		5
8 a)	Write briefly about memory mapped I/O and Isolated I/O.		3
b)	Define the following terms with respect to Hard Disk. i)Sector ii) Track iii) Cylinder		6
9 a)	What are computer registers? Name them and write their purposes.		5
b)	What do you mean by Cache memory? What is its function?		4
10 a)	Write brief notes on Programmed I/O and interrupt initiated I/O.		4
b)	Write a brief note on impact printer and non impact printer.		5
11	Write short notes on a) RISC b) Booth's algorithm c) DMA		3x3=9

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