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DEPARTMENT OF ELECTRONICS AND COMMUNICATION
B.E. 4th SEMESTER
MID SEMESTER EXAMINATION - 2015

Subject Code: EC-404   Branch: EC
Subject: Microprocessor and Interfacing   Total Marks: 30
Date:03/03/2015   Time: 12:00 to 1:30PM

<u>Instructions:</u> - All questions are compulsory.
- Figures to the right indicate full marks.
- Make suitable assumption, wherever necessary.

Que. 1	**Answer the following question.**	**(08)**
A)	Explain 8085 Addressing Modes with examples.	(03)
B)	Explain the following Instruction: 1)XTHL 2) DAD SP	(03)
C)	Identify the register contents and the flag status as the following instructions are executed	(02)

	A	S	Z	CY
LXI H,2070H				
MVI M,64H				
MVI A,8FH				
CMP M				

Que. 2	**Answer the following questions.**	**(10)**
A)	Draw and Explain Pin diagram of 8085.	(05)
B)	Write down ALP of addition of two numbers with ADD and ADI Instructions.	(05)

<div align="center">OR</div>

Que. 2	**Answer the following questions.**	**(10)**
A)	Draw and explain Timing diagram of MVI A,10H.	(05)
B)	Draw and explain Demultiplexing of AD7-AD0 lines.	(05)

Que. 3	**Answer the following questions.**	**(12)**
A)	What is subroutine? Explain call and RET instruction with suitable examples.	(06)
B)	Calculate the total time delay in the following program to load register pair BC with 0000H and also calculate the loop delay if the system clock frequency is 3.072MHz(Adjust for the Last cycle.)	(06)

```
LXI B,2384H      10Tstate
LOOP: DCX B      6 Tstate
MOV A,C          4 Tstate
ORA B            4 Tstate
JNZ LOOP         10/7 Tstate
```

<div align="center">OR</div>

Que. 3	**Answer the following questions.**	**(12)**
A)	Explain the 8255 block diagram and modes.	(06)
B)	Explain the stack related Control Instruction (Any three Instruction)	(06)

<div align="center">*****Best of Luck*****</div>