Total No. of Printed Pages:2

SUBJECT CODE NO:- P-130

FACULTY OF ENGINEERING AND TECHNOLOGY

T.E.(EEP/EE/EEE) Examination MAY/JUNE-2016

Microprocessor & Interfacing

(Revised)

[Time: Three Hours] **[Max Marks:80]**

"Please check whether you have got the right question paper."

N.B 1) Question No.1 from section A and Question No.6 from section B are compulsory.
2) Solve any two questions from remaining questions from each section A and B.

Section A

Q.1 Solve any five 10

a) Write an instruction to enable all the interrupts in 8085 system.
b) What is R IM
c) What is CALL instruction?
d) What is three byte instruction?
e) Define opcode and operand.
f) Define T-state
g) Explain the function of ALU.
h) Define (a) ROM (b) Assembler.

Q.2 a) With suitable examples explain 8085 addressing modes in detail. 08
b) Explain the architecture of microprocessor 8085. 07

Q.3 a) Draw and explain the timing diagram of memory read cycle. 08
b) Explain the direct addressing modes. 07

Q.4 a) Write a 8085 ALP to generate a accurate time delay of 100ms 08
b) Explain 8085 stack in detail. 07

Q.5 a) Write a program to sort given 10 numbers from memory location 2200H in the ascending order. 08
b) Write a ALP to generate Fibonacci series. 07

Section-B

Q.6 Solve any five 10

a) Write an instruction for serial output data.
b) Write the various modes of 8254 timer.
c) Define band.
d) What is USART?
e) What is the use of mode 2 in 8255 PPI?
f) Write the control signals used in 8255 PPI.
g) Write the control word format in the BSR mode.
h) What are the signals used by the DMA controller?

Q.7 a) Draw and explain the architecture of 8051. 08
b) What are the functions of the following pins in 8051 07
1) ALE 2) $\overline{EA}$3) $\overline{PSEA}$ 4) TO

Q.8	a)	Design a 5 minute clock using the 8254 and the interrupt technique	08
	b)	Explain the block diagram of 8155 I/O section and timer.	07
Q.9	a)	Explain the register organization of 8257.	08
	b)	Draw and explain the pin diagram 8259.	07
Q.10	a)	Explain the five interrupts inputs of 8085 with priority.	08
	b)	Write short note on DMA controller.	07

3590c3e2aa39f18756f8acc0a5e2fe2a