Total No. of Printed Pages:2

SUBJECT CODE NO:- H-1393
FACULTY OF SCINECE AND TECHNOLOGY
T.Y.B.Tech.(Electrical) (Sem-V)
Microprocessor & Microcontroller
(Revised)

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

Please check whether you have got the right question paper.

N.B i) Q.1. and Q.6 are compulsory.
ii) Attempt any 2 questions from each section.

Section A

Q.1 Attempt any five of following. 10
a) Enlist different data transfer schemes of 8085.
b) Write different instructions used in memory mapped i/o.
c) Write any four indirect addressing mode instructions.
d) Give addressing modes of following instructions
i) LXIH, 2800H ii) MOV B,M iii) IN 80Hiv) OUT 80H.
e) Draw flag register of 8085.
f) Write instructions to reset bit no.3 of port C of 8255.

Q.2 a) Explain addressing modes of 8085 with proper examples. 08
b) Draw timing diagram of MVIA, 08H. 07

Q.3 a) Draw and explain interfacing of Relay with 8085 using 8255. Give complete address map. Write a program to turn on the bulb for 1 minute. 08
b) Describe control word register of 8255 in BSR mode. with neat diagram write a program for blinking of LED connected to port C bit no.6. 07

Q.4 a) Explain addressing modes of 8086 with proper example. 08
b) Describe programming model of 8086 with neat diagram. 07

Q.5 a) Explain following instructions of 8086. 08
i) XCHG AL, BL
ii) SBB DL, CL
iii) MUL BL
iv) DAA
b) Describe minimum mode of 8086 with proper diagram. 07

Section B

Q.6 Attempt any five of the following. 10

a) Give the function of PSEN pin of 8051.
b) Write addressing modes of following instructions.
i) MOV A, @ RO ii) ADD A, II 05H iii) MOV A,RO iv) MOV A, 40H
c) Draw SCON register format.
d) Enlist serial communication modes of 8051.
e) Why stack pointer of 8051 is 8 bit wide?
f) Why 11.0592 MHz frequency is used for 8051?

Q.7 a) Explain following instructions of 8051. 08
i) ANLA, II 04 H ii) XRLA, 40H iii) SWAP A iv) RLA
b) Explain memory organization of 8051 microcontroller. 07

Q.8 a) Sketch architecture of 8051. 08
b) Draw SCON register format. Write a program to send a character "A" continuously. 07

Q.9 a) Draw and explain interfacing of DAC with 8051. Write a program to generate triangular wave. 08
b) Write a program to generate a square wave of 1 KHz frequency using timer of 8051. 07

Q.10 a) Describe memory organization of PIC microcontroller. 08
b) Give the features of PIC family. 07