SP - 136

Total No. of Pages : 2

Seat No.	

T.Y. B.Tech. (ETC) (Semester - VI) (CBCS)
Examination, November - 2023
MICROPROCESSOR & MICROCONTROLLERS
Sub. Code : 81647

8753

Day and Date : Wednesday, 22 - 11 - 2023 **Total Marks : 70**

Time : 2.30 p.m. to 5.00 p.m.

Instructions :
1) **All questions are compulsory.**
2) **Figures to the right indicates full marks.**
3) **Assume suitable data wherever necessary.**

Q1) Attempt the following **[14]**

a) In 8085 MVI A, 20h is an example of which addressing mode?

i) Immediate ii) Direct

iii) Register iv) Indirect

b) If the microprocessor has 10 address lines, then the number of memory locations it is able to address is

i) 512 ii) 2048

iii) 1024 iv) 10

c) In 8255 the BSR mode is applicable to which port

i) Port 0 ii) Port 2

iii) Port A iv) Port C

d) Which ports of 8051 assist in addressing lower order and higher address bytes into the data bus simultaneously, while accessing the external data memory?

i) Port 0 & Port 1 ii) Port 0 & Port 2

iii) Port 1 & Port 2 iv) Port 2 & Port 3

e) In 8051 which mode of Timer is called as 8 Bit Auto Reloaded mode?

i) Mode 0 ii) Mode 1

iii) Mode 2 iv) Mode 3

P.T.O.

f) After RESET the Ports of 8051 by default are configured as

i) INPUT ii) OUTPUT

iii) INPUT/OUTPUT iv) OUTPUT/INPUT

g) Which of the following is the Output Interfacing device

i) KEYBOAD ii) ADC

iii) DAC iv) All of Above

Q2) Attempt any two of the following. **[14]**

a) Draw and explain generation of various of control signals in 8085.

b) Draw Timing Diagram of Instruction MOV A, B in 8085.

c) Draw and Explain Interrupt structure of 8085

Q3) Attempt any two of the following. **[14]**

a) Draw and Explain Block Diagram of 8255.

b) Explain RAM and ROM Memory organization of 8051.

c) Explain addressing modes in 8051 with one example each.

Q4) Attempt any two of the following **[14]**

a) Draw and Explain Block diagram of Mode 1 of Timer 0 in 8051.

b) Explain Interrupt Enable (IE) and Interrupt Priority (IP) registers of 8051 in detail.

c) Draw and Explain SCON special function register of 8051 in detail.

Q5) Attempt any two of the following. **[14]**

a) Draw Interfacing Diagram of ADC 0808 to 8051 and explain its interfacing.

b) Explain various logical operations that can be performed using embedded C statements.

c) Draw Interfacing Diagram of 16*2 LCD to 8051 and explain its interfacing.

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