Total No. of Question : [4]　　　　　　　**Registration No. :** | | | | | | | | |

Programme Name : Bachelor of Electronics and Telecommunication Engineering
Regular T.Y.B.Tech. ESE (A.Y. 2023-24) Sem.V Nov.2023
V SEMESTER (2021 BATCH)
201ETL301-Microprocessor and Microcontroller

Duration : [11:00 AM - 01:00 PM]
Date : 20 Nov, 2023
Day : Monday

　　　　　　　　　　　　Marks : 50

Instructions :

(Q1) **All Questions are compulsory**　　　　　　　　　　　　　　　　　[20.0]

　　(1.1) What is an addressing mode? With suitable example, explain any 4 addressing modes [7.0]
　　　　　in 8085

　　　　CO :- 1
　　　　Blooms Taxonomy :- Analyze

　　(1.2) Explain the purpose of the following signals in 8085 (i) READY (ii) AD0-AD7 (iii)HOLD　[6.0]

　　　　CO :- 2
　　　　Blooms Taxonomy :- Analyze

　　(1.3) Sketch the Internal memory organization in 8051 and explain the same　　　　　[7.0]

　　　　CO :- 3
　　　　Blooms Taxonomy :- Analyze

(Q2) **All Questions are compulsory**　　　　　　　　　　　　　　　　　[10.0]

　　(2.1) Write and explain bit format for SCON and PCON SFR for 8051 Microcontroller　　[6.0]

　　　　CO :- 4
　　　　Blooms Taxonomy :- Apply

OR [2.1 / 2.2]

　　(2.2) Draw and explain mode 2 for timer of 8051 controller　　　　　　　　　　[6.0]
　　(2.3) States interrupts in 8051 microcontroller and give their priority upon reset　　　[4.0]

　　　　CO :- 4
　　　　Blooms Taxonomy :- Apply

(Q3) **All Questions are compulsory**　　　　　　　　　　　　　　　　　[10.0]

　　(3.1) Draw the interfacing of Stepper motor and write an ALP to rotate in clockwise direction [6.0]

CO :- 5
Blooms Taxonomy :- Apply

OR [3.1 / 3.2]

(3.2) Explain the interfacing diagram of DAC to 8051. Write an ALP to generate square [6.0]
waveform using DAC.

CO :- 5
Blooms Taxonomy :- Apply

(3.3) Explain interfacing of LED with 8051 micro controller [4.0]

CO :- 5
Blooms Taxonomy :- Apply

(Q4) **Attempt any two out of three questions** [10.0]

(4.1) Explain different data types in embedded C [5.0]

CO :- 6
Blooms Taxonomy :- Apply

(4.2) Write an 8051 C program to toggle bits of P1 ports continuously with a 250 ms [5.0]

CO :- 6
Blooms Taxonomy :- Apply

(4.3) Write an 8051 C program to monitor bit P1.5. If it is high, send 55H to P0; otherwise, [5.0]
send AAH to P2.

CO :- 6
Blooms Taxonomy :- Apply

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