

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - V E & TC : : SUMMER - 2022
SUBJECT : MICROPROCESSORS & MICROCONTROLLERS

Day : Monday
Date : 30-05-2022

S-13356-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
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Q.1 Draw and explain interrupt structure of 8085. **(10)**

OR

- a) What is the difference between a microprocessor and a microcontroller? **(05)**
- b) Write a note on stack and subroutines in 8085. **(05)**

Q.2 a) Write a note on ports of 8051. **(05)**

b) Explain addressing modes of 8051 with examples. **(05)**

OR

Draw and explain architecture of 8051. **(10)**

Q.3 Draw and explain the interfacing diagram of stepper motor with 8051. **(10)**

OR

Write a program to interface 16 x 2 LCD with 8051 and display following string on LCD. **(10)**

“WELCOME HOME”

Q.4 Discuss following features of PIC18F : **(10)**

- i) Oscillator configuration
- ii) Watch dog Timer
- iii) Brown out Reset

OR

Discuss features of PIC18Fxx series. **(10)**

Q.5 Write a note on operation of Timer 0 in PIC18F along with the contents of associated register. **(10)**

OR

What are the interrupts present in PIC18F? What is the role of GIE and PEIE? What are registers used for programming interrupts? **(10)**

Q.6 Discuss CAPTURE mode in PIC with neat diagram. **(10)**

OR

Write a note on I²C protocol. What are the different acknowledgements generated in it? Draw the timing diagrams. **(10)**

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