B.Tech. SEM -VI Bio Medical 2014 Course (CBCS) : SUMMER - 2019

SUBJECT: MICROPROCESSORS AND MICROCONTROLLERS

Day: Wednesday
Date: 22/05/2019

Time: 02.30 PM TO 05.30 PM
Max. Marks: 60

S-2019-2772

N.B:

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw a neat diagram **WHEREVER** necessary.
4) Assume suitable data, if necessary.

Q.1 Draw and describe the architecture of 8085 Microprocessor. **(10)**

OR

Compare the following: **(10)**
i) Harvard and Von Neumann architecture
ii) Memory Mapped I/O and I/O Mapped I/O

Q.2 Draw and describe the internal architecture of 8051 Microcontroller. **(10)**

OR

List and discuss the different special function registers in 8051 Microcontroller. **(10)**

Q.3 Discuss the process of running assembly language program in 8051 Microcontroller. **(10)**

OR

Discuss the different JUMP and CALL instructions with the help of example. **(10)**

Q.4 Describe the functions of each bit of SCON and PCON. **(10)**

OR

Define the following concepts of serial communication in 8051 Microcontroller. **(10)**
i) Half Duplex
ii) Full Duplex
iii) Baud Rate
iv) Synchronous Communication
v) Asynchronous Communication

Q.5 Draw and describe the PIC18F programming model in detail. **(10)**

OR

Discuss Stacks and Subroutines in PIC18F Microcontroller. **(10)**

Q.6 Discuss the Timer registers in PIC18F Microcontroller. **(10)**

OR

Describe the concept of interrupts in PIC18F Microcontroller. **(10)**

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