

Paper Id: **120518**Roll No: 

--	--	--	--	--	--	--	--	--	--	--	--

**B.TECH**  
**(SEM V) THEORY EXAMINATION 2019-20**  
**MICROPROCESSOR & ITS APPLICATIONS**

Time: 3 Hours

Total Marks: 100

**Note:** Attempt sections in any order as per convenience. No marks will be deducted for any omission or error in the above.

**SECTION A**

**1. Attempt the questions briefly. 2 x 10 = 20**

a.	Define following: (i)Nibble(ii)word
b.	Give the significance of SIM and RIM instruction in 8085.
c.	How the clock signal is generated in 8085 ?
d.	Define compiler or interpreter in programming languages.
e.	Draw flag register of 8085.
f.	What is stack memory ? Explain.
g.	What is meant by cross compiler ?
h.	How many modes are present in 8255 PPI?
i.	What are the general purpose registers in 8086 microprocessor ?
j.	Write about types of addressing modes in 8086

**SECTION B**

**2. Attempt any three of the following: 10x3=30**

a.	Draw and explain the internal architecture of 8259 interrupt controller. Also describe its initialization command words?
b.	Explain the following instructions of 8085 microprocessors a) POP PSW b) XTHL c) SPHL d) PUSH PSW e) CMP M
c.	List out mask able and non-mask able interrupt available in 8085. Discuss in detail.
d.	Explain Minimum Mode operation of 8086 microprocessor with block diagram.
e.	Explain the addressing capability of 8085 microprocessor .How the 20 bit memory is addressed.

**SECTION C**

**3. Attempt any one part of the following: 10x1=10**

a.	Explain the instruction formats of 8086 ?Also explain the function of special bits used in instruction format.
b.	Discuss the concept of segmented memory? What are its advantages?

**4. Attempt any one part of the following: 10x1=10**

a.	Explain assembler level programming and draw the flowchart of assembler level programming?
b.	Write a program based on 8086 instruction set to compute addition of 16 bytes stored in memory ?

**5. Attempt any one part of the following: 10x1=10**

a.	Discuss the mode of operation of 8253 program , internal time with its control format.
b.	Give the features and functional block diagram of 8237 DMA controller.

**6. Attempt any one part of the following: 10x1=10**

a.	Write an assembly level program to find square root of given number.
b.	Draw and explain the memory and I/O read cycle of 8085.

**7. Attempt any one part of the following: 10x1=10**

a.	Explain all data transfer instruction of 8086.
b.	Interface an 8255 with 8086 to work as an I/O port.