BSIT/D-12
MICROPROCESSOR ARCHITECTURE AND
PROGRAMMING-III
Paper–BSIT-505

Time Allowed : 3 Hours] [Maximum Marks : 45

Attempt five questions in all, selecting at least one question from each Unit. Question No. 1 is compulsory.

(Compulsory Question)

(a) Discuss the role of Stack in calling a Sub-routine and returning from Sub-routine. 2
(b) Explain important difference between Static RAM interfacing and dynamic RAM interfacing. 3
(c) Discuss the key features of Multiport memory configurations. 2

P.T.O.
(d) Bring out salient features of 80286 in real address mode.

UNIT-I

2. (a) Explain interrupt structure of 8086 in detail.
(b) Define a Macro "SQRT" that calculates square root of a number.

3. (a) Explain how parameters are passed to Macro.
(b) Write ALP to generate 10 sec. delay using microprocessor system that runs at 50 MHz.

UNIT-II

4. (a) Discuss the procedure of interfacing static RAM with CPU.
(b) Interface two 4K RAM chips and two 2K EPROM chips with 8088 so as to form a completely working system configuration.

5. (a) Explain the control word format of 8255 in I/O mode.
(b) Interface an 8x8 keyboard using two 8255 ports.

UNIT-III

6. (a) Interface a typical 12-bit DAC with 8255.

UNIT-IV

(b) Write a program to generate square wave of period 1 m sec. using CPU that runs at 10 MHz.

Discuss Architecture of numeric processor 8087 in detail.

(a) What do you mean by Swapping in and Swapping out?

(b) What are the salient features of protected virtual address mode?

Discuss design issue of RISC processor in detail.