

22660

M.Tech. 1st Semester (ECE) CBCS Scheme
Examination, December-2019
ADVANCE MICROPROCESSOR AND
MICROCONTROLLER
Paper-MTECE21C1

Time allowed : 3 hours [Maximum marks : 100]

Note: Question No. 1 is compulsory. Attempt one question from each section.

1. (a) Differentiate between microprocessor and microcontroller.
(b) Explain shift and rotate instructions.
(c) What are data transfer instructions and arithmetic instructions?
(d) Write a program to find 1's complement of the number. $4 \times 5 = 20$

Section-A

2. (a) Draw and explain pin diagram of 8259. 10
(b) Discuss the evolution of microprocessor. 10
3. (a) Explain dence polling and interrupts. 10
(b) Draw and explain the block diagram of 8086 microprocessor. 10

(2)

22660

Section-B

4. (a) Draw and explain internal architecture of 8051. 10
(b) Discuss interrupt system of 8051. 10
5. (a) Using 8051 microcontroller write a program to search a byte in an array. 10
(b) Explain Counter/Times of 8051. 10

Section-C

6. (a) Write short note on 68XXX hardware. 10
(b) Discuss interrupt structure of 80386. 10
7. For intel 80286 discuss: 20
(a) Flag register
(b) PVAM
(c) Architecture

Section-D

8. (a) Discuss the concept of developing, implementing and testing a design. 10
(b) Discuss the various standards used in serial data transfer with detail. 10
9. Write short notes on: 20
(a) D/A and A/D interface.
(b) UART
(c) TMOD and TCON registers.