

19. (a) Explain about Register Organization of 80286 with neat diagram.

Or

- (b) Discuss about virtual mode of 80386 with diagram.
20. (a) Explain about Signal Description of 8051 in detail.

Or

- (b) Illustrate architecture of 80196 with neat sketch.

PART C — ($3 \times 10 = 30$)

Answer any THREE questions.

21. Illustrate Architecture of 8086 with neat diagram.
22. Explain in detail about addressing modes of 8086.
23. Write a program to find the smallest and biggest number in array of assemble language 8086.
24. Elucidate architecture of Pentium processor with neat sketch.
25. What are the categories of instruction set in 8051? Explain.

S.No. 2769

P 22 CSE 1 B

(For candidates admitted from 2022 – 2023 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Computer Science – Elective

MICROPROCESSOR AND MICROCONTROLLERS

Time : Three hours

Maximum : 75 marks

PART A — (20 marks)

Answer ALL questions.

- I. (A) Multiple choice questions : ($5 \times 1 = 5$)
1. The pin of minimum mode AD0-AD15 has _____
- (a) 16 (b) 20
- (c) 32 (d) 4
2. The instruction that is used to transfer the data from source operand to destination operand is
- (a) data copy/transfer instruction
- (b) branch instruction
- (c) arithmetic/logical instruction
- (d) string instruction

3. Logical space called _____
 (a) DATA Segment
 (b) CODE Segment
 (c) DATA CODE Segment
 (d) All of the above
4. The additional field that is available in 80286 is
 (a) I/O Privilege field
 (b) nested task flag
 (c) protection enable
 (d) all of the mentioned
5. How many 16 bit registers are available in 8051?
 (a) 2 (b) 3
 (c) 1 (d) 0
 (B) Fill in the blanks : (5 × 1 = 5)
6. _____ and _____ are the parts of 16 bit flag register in 8086.
7. The _____ instruction that pushes the contents of the specified register/memory location on to the stack
8. Assembly language programs are written by using _____
9. _____ unit is not considered as a block of an architecture of 80286
10. The 8051 microcontroller has _____ address bus.

- II. Answer the following : (5 × 2 = 10)
11. Write the advantages used in memory segmentation.
12. Differentiate Operation code field and operand field.
13. What is code segment?
14. List the Data types of 80386
15. Define PSW (Program Status Word) format.

PART B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

16. (a) Describe about Maximum mode 8086 system and timings in detail.
 Or
 (b) Elucidate Architecture of 8088 with neat diagram.
17. (a) Describe about branch instruction detail
 Or
 (b) How to enter, assemble and link program with an assembly Language.
18. (a) Write a program for sum of series in 8086 assembly language.
 Or
 (b) What is Block of Data Transfer? Explain with example.