18U672 (Pages: 2) Name: ……………………

Reg. No: …………………...

SIXTH SEMESTER B.C.A DEGREE EXAMINATION, APRIL 2021
(CUCBCSS - UG)
CC17U BCA6 B17a – MICROPROCESSOR AND APPLICATIONS
(Computer Application – Elective)
(2017 Admission - Regular)

Time: Three Hours   Maximum: 80 Marks

Part A
Answer *all* questions. Each question carries 1 mark.

1. How many Address Lines are there in 8086 Microprocessor?

2. The data, variables and constants given in the program are held in which segment of the memory.

3. If we want to take immediate input from the user then which instruction is used as data transfer instruction?

4. What is the mnemonic **XCHG** stands for in 8086?

5. What happens when **CLD** is executed in 8086?

6. Name the Procedure Definition directive in 8086 assemblers.

7. Which directive informs the assembler to include the statements defined in the include file?

8. Expand **PPI**.

9. What is the interfacing device designed for microprocessors to perform timing and counting functions using three 16-bit registers?

10. What is the next microprocessor invented after 80486?

(10 × 1 = 10 Marks)

Part - B
Answer *all* questions. Each question carries 2 mark.

11. Which are the different types of flags in 8086?

12. Explain the functions of the **CMPS and CMPSB** instructions in 8086.

13. What are the different Assembler directives in 8086?

14. What do you mean by **key debounce**?

15. What is the use of **PUSH** and **POP**?

16. For what purpose Assembler Directive are used?

17. Explain the Operating Modes of **8253**.

18. What is the Instruction MOV AX, [SI] in Assembly Language meant for?

(8 × 2 = 16 Marks)

Part - C

Answer any *six* questions. Each question carries 4 marks.

19. Draw the Pin Diagram of 8086 specifying each one of them.

20. What are the Segment Registers in 8086? Explain each one of them.

21. What do you mean by an Instruction cycle? What is the purpose of Timing Diagram?

22. What are the different addressing modes in 8086?

23. Define Macro and explain its Functions? What is the Difference between Macro and Subroutine?

24. What is the role of **DMA**?

25. Compare any 2 features of 80486 and Pentium Processors. Write a brief note on the features of Pentium Processor.

26. Explain **8251A**.

27. Briefly discuss the **DOS** and **BIOS** interrupts.

(6 × 4 = 24 Marks)

Part - D

Answer any *three* questions. Each question carries 10 marks.

28. Draw and explain the internal Architecture of 8086.

29. Describe the Minimum and Maximum mode configurations of the 8086 microprocessors. Specify what are the common Minimum and Maximum mode pins of Intel 8086.

30. Discuss briefly the different Types of instructions in 8086. Explain any two of them from each category.

31. Describe briefly the Assembler Directives in 8086. Explain any 4 of them.

32. Explain the working of 8259.

(3 × 10 = 30 Marks)

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