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FIFTH SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS - UG)

CC15U BCA5 B12 - MICROPROCESSOR AND APPLICATIONS

(Computer Application – Core Course)

(2015, 2016 Admissions - Supplementary)

Time: Three Hours

Maximum: 80 Marks

PART A

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

- 1. Define microprocessor.
- 2. List few data movement instructions.
- 3. 8086 is a _____ bit microprocessor.
- 4. What is meant by address data lines?
- 5. List four registers used in 8086 processor.
- 6. What is the use of HOLD and HLDA pins?
- 7. Name few jump instructions.
- 8. What is the function of DMA in 8086?
- 9. XCHG is a type of 8086 String instruction. True or False?
- 10. Name two functional units of 8086.

$(10 \times 1 = 10 \text{ Marks})$

PART B

Answer *all* questions. Each question carries 2 marks.

- 11. Compare the features of 80286 and 80486.
- 12. Write any two arithmetic instructions with examples.
- 13. What is the purpose of status flags?
- 14. Differentiate hardware and software interrupts.
- 15. Explain minimum and maximum mode operation of 8086.

 $(5 \times 2 = 10 \text{ Marks})$

PART C

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

- 16. Explain alignment directives in short.
- 17. What are logical instructions? List any four.
- 18. Explain in detail about macros.
- 19. Briefly explain DAA & DAS instructions.

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- 20. Explain the significance of timers in processor.
- 21. Write any four features of Intel 8086 processor.
- 22. List any two shift instructions with example.
- 23. Briefly explain maskable and non-maskable interrupts.

(5 × 4 = 20 Marks)

PART D

Answer any *five* questions. Each question carries 8 marks.

- 24. Explain various addressing modes.
- 25. Explain Programmable Interval Timer.
- 26. Write notes on Target Machine code generation directives.
- 27. Explain any four String Instructions.
- 28. Elaborate 8257 DMA Controller with a neat diagram.
- 29. Write notes on 8086 interrupts.
- 30. Write notes on processor control instructions.
- 31. Explain the architecture of 8086 with a neat diagram.

(5 × 8 = 40 Marks)
