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# SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2018 (CUCBCSS - UG)

# CC15U BCS6 E03 - MICROPROCESSOR AND APPLICATIONS

Computer Science - Elective (2015 Admission)

Time: Three Hours Maximum: 80 Marks

#### Part A

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

- 1. The 8086 has ----- pin dual in-line package.
- 2. What are the names of the 4 segment registers in 8086.
- 3. The conditional branch instruction JNS performs the operation when if------
- 4. The 8086 arithmetic instruction ADC stands for ------
- 5. INT 3 is a ----- byte instruction.
- 6. In 8086 assembler, the directive ----- is used define a QWORD type variable.
- 7. The directive ----- informs the assembler the beginning of a macro.
- 8. USART stands for-----
- 9. The Intel 8257 is a ----- channel programmable DMA controller.
- 10. Intel 80386 is ----- bit microprocessor.

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

## Part - B

Answer all questions. Each question carries 2 marks.

- 11. Which are the general purpose registers?
- 12. Explain the functions of the 8086 SHL and SHR instructions.
- 13. What is key debouncing?
- 14. What are the variable types supported by X86 assembly language.
- 15. Briefly discuss the Intel Pentium.

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

### Part - C

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

- 16. What are the segment registers? Explain the purpose of them.
- 17. Explain the Flag registers in 8086.
- 18. Explain the string instructions of 8086.
- 19. Explain any four assembler directive.
- 20. Explain the address capability of 8086.

- 21. What is a DMA data transfer? Explain.
- 22. What is a procedure? Explain.
- 23. Explain different modes of 8255 operation.

 $(5 \times 4 = 20 \text{ Marks})$ 

# Part - D

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

- 24. Explain the functional units of Intel 8086 with block diagram.
- 25. Discuss the addressing modes of 8086.
- 26. List and explain the data definition and storage directive and program organization directive of the 8086.
- 27. Explain the Intel 8255 Programmable Peripheral Interface.
- 28. What is Macro? List and explain macro defining directives of the 8086.
- 29. Explain 8086 interrupts.
- 30. Write notes on Logical, shift and rotate instructions.
- 31. Explain Intel 80286.

 $(5 \times 8 = 40 \text{ Marks})$ 

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