K16U 2071

Reg. No. : .....

Name : .....

III Semester B.C.A. Degree (CBCSS-Reg./Supple./Imp.) Examination, November 2016
(2014 Admn. Onwards)
Core Course
3B07 BCA : INTRODUCTION TO MICROPROCESSORS

Time : 3 Hours Max. Marks : 40

SECTION – A

1. Fill in the blanks. (8×0.5=4)

   a) In 8085, the _____ register holds the address of the next instruction to be executed.

   b) 8085 has _____ bit address bus.

   c) _____ prefetches 6 bytes of instructions from memory in order to speed up instruction execution in 8086 microprocessor.

   d) 8086 is operated in the maximum mode by strapping the _____ pin to the ground.

   e) _____ breaks the normal sequence of execution of instructions.

   f) _____ has the highest priority among external interrupts.

   g) 8086 has _____ general purpose registers.

   h) _____ instruction forms 2's complement of the specified destination in the instruction.

SECTION – B

Write short notes on any seven of the following questions.

2. What is meant by pipelined architecture ?

3. Explain the physical memory organization in 8086.

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4. List the machine control instructions of 8086 and their functions.
5. Differentiate between ROR and ROL.
6. What is stack ?
7. Distinguish between macro and subroutine.
8. Describe the execution of a CALL instruction.
9. What is an internal interrupt ?
10. What is the function of DMA address register ?
11. What is auxiliary carry flag ?

SECTION – C

Answer **any four** of the following questions. **(4x3=12)**

12. What are the advantages of segmented memory ?
13. Explain the two operating modes of 8086.
14. Distinguish between register indirect and register relative addressing modes.
15. Explain the procedure of generating delays in a microprocessor.
16. List the features of 8259.
17. What are data transfer schemes ?

SECTION – D

Write an essay on **any two** of the following questions. (2x5=10)

18. Explain the registers of 8086.
19. Describe the architecture of 8086 with a block diagram.
20. Explain the assembler directives and operators.
21. Explain the servicing of interrupts in 8086.
