## 

# K15U 0325

Reg. No. : .....

Name : ....

# III Semester B.C.A. Degree (CCSS – 2014 Admn. – Regular) Examination, November 2015 Core Course 3B07 BCA : INTRODUCTION TO MICROPROCESSORS

Time : 3 Hours

Max. Marks: 40

#### SECTION - A

#### 1. One word answer :

#### (8×0.5=4)

- a) \_\_\_\_\_ is the first 4 bit microprocessor by Intel.
- b) The contents of Accumulator and Status Flags clubbed together is known as
- c) The \_\_\_\_\_\_ unit in 8086 makes the system bus signals available for external interfacing of devices.
- d) \_\_\_\_\_ pin in 8086 indicates that the other system bus masters will be prevented from gaining the system bus.
- e) The \_\_\_\_\_\_ directive is used to reserve byte or bytes of memory locations in the available memory.
- f) \_\_\_\_\_ describe the type of operands and the way they are accessed for executing an instruction.
- g) \_\_\_\_\_ is a 16 bit register that contains the offset of the address that lies in the stack segment.
- h) \_\_\_\_\_\_ is the fastest among all modes of data transfer.

#### SECTION - B

Write short notes on any seven of the following questions : (7×2=14)

2. Explain the physical address formation of 8086.

3. Explain the function of LOCK pin of 8086.

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- 4. What are assembler directives ?
- 5. State and explain the instruction formats of 8086.
- 6. What is ISR?
- 7. What are macros?
- 8. Write an Assembly Language program to generate a delay of 100 ms using an 8086 system that runs on 10 Mhz frequency.
- 9. What is Interrupt Request register ?
- 10. What is BSR mode?
- 11. What is instruction register ?

## SECTION-C

Answer any four of the following questions :

12. What are the flag registers of 8085?

- 13. Explain the general bus operation cycle in maximum mode.
- 14. Explain the addressing modes of 8086.
- 15. Differentiate between maskable and non maskable interrupts.
- 16. What are data transfer schemes ?
- 17. Explain the two operating modes of 8086.

#### SECTION - D

Write an essay on any two of the following questions :

 $(2 \times 5 = 10)$ 

 $(4 \times 3 = 12)$ 

- 18. Discuss the register organization of 8086.
- 19. Explain the branch instructions in 8086 with an example.
- 20. Explain the stack structure of 8086.
- 21. Explain the modes of operation of 8255.