D 50841 **(Pages 2)** **Name**

Reg. No.....

FIFTH SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2013

(UG-CCSS)

Core Course

CA 5B 08—MICROPROCESSOR

Time : Three Hours Maximum : 30 Weightage

I. Answer all *twelve* questions :

1 8086 has _____ General Purpose Registers.

2 The 8088 has a _____ bit external data path to memory and I/O.

3 The 8086 microprocessor is divided internally into Bus Interface Unit and _____

4 The instruction can be used to employ an index in a table.

5 Say True *or* False : For intrasegment jumps, IP and CS changes.

6 _____ is an example of string instruction.

7 The _____ pseudo _____ instruction assigns a logical segment to a physical segment at any given time.

8 The _____ directive can be used to assign a name to a constant.

9 Say True *or* False : INTnn instruction is maskable by the interrupt enable flag IF.

10 IVT stands for _____

11 Say True *or* False : Pentium is a CISC processor.

12 486 is a _____ bit processor.

(12 x = 3 weightage)

II. Answer all *nine* questions :

13 State the functions of Bus Interface Unit.

14 List 8086 addressing modes.

15 Differentiate Macro and Subroutine.

16 List and explain any two program control instructions.

17 List any *four* assembler directives.

18 Differentiate between maskable and non-maskable interrupts.

Turn over

19 What do you mean by Programmed I/O ?

20 List and explain any *two* features of 386 which is not supported in 8086.

21 List any *four* features of Pentium Pro.

(9 x 1 = 9 weightage)

III. Answer any *five* questions :

22 Explain flag registers of 8086.

23 Explain the purpose of SP, BP, SI and DI registers. Cite suitable examples.

24 With suitable examples, explain how looping structures are constructed with 8086 instructions.

25 Illustrate the use of PUSH and POP instructions in Subroutine calls.

26 With suitable example, explain how a macro is defined and used.

27 Write an 8086 Assembly Language Program to add two 64-bit numbers. Assume SI and DI contains the starting address of the numbers. Store the result in memory pointed by (DI).

28 List and explain features of 386.

(5 x 2 = 10 weightage)

IV. Answer any *two* questions :

29 Discuss in detail 8086 architecture.

30 Write 8086 instructions for the following :—

(i) Set DS and SS to 0200H and FF00H respectively.

(ii) Initialize stack pointer 0000H.

(iii) Add fifty 16-bit numbers stored in consecutive memory locations starting at displacement 0500H.

(iv) Store the result on the stack.

31 (a) Write notes on 8086 interrupts.

(b) Explain the features, organization and application of 8257.

(2 x 4 = 8 weightage)