Roll No. .....

97630

B.C.A. 3rd Semester (Re-appear) Examination–December, 2013

Micro Processor & Assembly Language

Paper-BCA-203

Time : 3 hours ***Max. Marks : 80***

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt any **five** questions. All questions carry equal marks.

1. (a) What do you mean by an Interrupt System ? Indicate the characteristics of an interrupt system. Also briefly explain that how it keeps track of achieving the above characteristics. *8*

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(b) Differentiate between 8086 and 8088 microprocessors. What is meant by 8086 pin diagram ? Explain the operation of each pin by giving suitable illustration. *8*

2. (a) What instructions are supported by 8086 assembly language ? Classify these instructions and illustrate the use of at least 4 instructions of each class. *8*

(b) What do you understand by internal architecture of 8086 microprocessor ? Illustrate this architecture in detail. *8*

3. (a) Differentiate between assembly and machine language. What is the structure of 8086/8088 assembly language program ? Discuss each and every element of this structure. *8*

(b) What do you understand by Input/Output interfacing ? State its types as well as the importance of each type of interfacing. *8*

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4. (a) What do you understand by an I/O port ? Describe the functioning of any I/O port chip of your choice through its diagram. 8

(b) What is meant by general-purpose interface controller ? Discuss the major functions of such a controller. 8

5. Explain the following :

(a) 8255A PPI 8

(b) 8251A PCI 8

6. (a) What is interrupt ? What are various types of interrupts ? Discuss the relevance of each category. 8

(b) How the following functions in 8257 DMAC are achieved ? 8

(i) Demultiplexing the bases

(ii) Multiplexing upper address and data bytes

(iii) Entering in Slave & Master modes

(iv) Accessing internal registers of 8255 as other memory locations or I/O ports

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7. (a) What do you mean by Interrupt Vector Table ? Discuss all the entries in this table with suitable illustration. *8*

(b) What are addressing modes ? Which addressing modes are supported by 8086 ? Illustrate their use. *8*

8. Explain the following :

(a) Interrupt vector table *8*

(b) 8254 Chip *8*

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