Roll No. .....

97630

B.C.A. 3rd Semester (New) (Regular)

Examination-December, 2012

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 in all. All questions carry equal marks.

1. (a) What is a Microprocessor ? List and briefly explain the specific features of microprocessor architecture. *8*

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

2. (a) What is UART ? What does it do ? Is it mandatory to correct the clock to the input of UART's receiver ? Explain. 8

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

3. Explain the following :

(a) Bus architecture 8

(b) 8255A PPI 8

4. (a) What do you mean by 8086 pin diagram ? Explain the operation of each pin by giving suitable illustration. 8

(b) Why assembly language is given a special treatment over other languages ? Also state the areas of applications where A/Language is best suited. 8

5. (a) What are addressing modes ? State the necessity and adoption of these addressing modes in 8086 A/L programming by taking suitable examples. 8

(b) What is 8086 instruction set ? Classify the instruction set and discuss at least 2 instructions of each category along with their usage. *8*

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

(b) What is 8254 chip used for ? Illustrate its working through its schematic diagram. *8*

7. How the following functions in 8257 DMAC are achieved : *16*

(a) Multiplexing upper address and data bytes

(b) Demultiplexing the buses

(c) Entering in Slave & Master modes

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

8. Explain the following :

(a) 8251A PCI *8*

(b) 8279 Chip. *8*