

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