

B.C.A. Part-II Semester-IV Examination
ADVANCE MICROPROCESSORS AND MICROCONTROLLER
Paper : 4ST5

Time : Three Hours]

[Maximum Marks : 60

Note :— (1) **ALL** questions are compulsory.

(2) All questions carry equal marks.

(3) Draw neat sketches wherever necessary.

1. (a) Enlist the features of 80286 microprocessor. 4
- (b) Draw the neat diagram of 80286 and explain it. 8

OR

2. (a) Explain indexed and based plus index addressing mode with suitable example. 6
- (b) Describe the working of 80286 in real mode. 6
3. (a) What is paging ? How it is achieved in 80386 ? 6
- (b) Explain flag register in 80486 microprocessor. 6

OR

4. (a) Explain protected mode of 80386 microprocessor. 6
- (b) Explain register organisation of 80586 microprocessor. 6
5. (a) Draw a block diagram of 8051 and explain it. 6
- (b) Explain interrupts in 8051 microcontroller. 6

OR

6. (a) Give the comparison between microprocessor and microcontroller. 6
- (b) Explain flags of 8051 controller. 6
7. (a) Describe the addressing modes of 8051. 8
- (b) Write ALP for addition of two 8 bit numbers. 4

OR

8. (a) Explain the classification of instruction set of 8051. 6
- (b) Write ALP for division of two 8 bit numbers. 6
9. (a) Explain serial and parallel communication of 8051. 6
- (b) Draw suitable diagram of interfacing of DAC with 8051. 6

OR

10. (a) Explain interfacing of 8051 with 8255 PPI. 6
- (b) Explain power saving mode of 8051. 6

