Unit - IV

8. (a) Write an assembly language Program (8086 μp) to add 10 consecutive 8-bit numbers. 6

   (b) What do you mean by assembler? Explain in detail. 5

9. (a) Write an assembly language program (8086 mp) to move a block of memory location to another block of memory location. 6

   (b) Write an assembly language program (8086 μp) to find the smallest element in a data sereis. 5

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S-764

B.Sc. (Part-III) Examination, 2015

COMPUTER SCIENCE

(Old Syllabus)

Paper - II

(Microprocessor & Assembly Language Programming)

Time Allowed : Three Hours] [Maximum Marks : 75

Note : Answer five question in all. Question No. 1 is compulsory. Attempt one question from each of the four units.

1. (i) What do you mean by general purpse register in 8086 micro-processor? 3

   (ii) Describe MUL and DIV instructions in 8086 μp. 3

   (iii) What is software interrupts? 3

   (iv) Describe $M/\overline{IO}$ and ALE pin signals in 8086. 3

(v) What do you mean by maximum and minimum operating mode? 3

(vi) What do you mean by pipelining? 3

(vii) Describe Register addressing mode and Register Indirect addressing mode. 3

(viii) Differentiate memory mapped I/O and I/O mapped I/O address scheme. 3

(ix) Differentiate between 8086 and 8088 μp.

(x) What do you mean by synchronous data transfer scheme? 4

Unit - I

2. (a) What do you mean by control unit? Explain the working of control unit. 6

(b) What do you mean by instruction cycle? Explain Fetch cycle and Execute cycle. 5

3. (a) What is micro-programming? Explain in brief. 6

(b) Discuss the functioning of BIU with the help of Block diagram. 5

Unit - II

4. (a) Describe the pin description of 8086 μp in minimum mode. 6

(b) What do you mean by Flag Register? Explain each flags in 8086 μp. 5

5. (a) Discuss the given Addressing modes of 8086 - 6

(i) Direct addressing

(ii) Based addressing

(iii) Indexed addressing

(iv) Implicit addressing

(b) Draw the timing diagram of memory read bus cycle. 5

Unit - III

6. Write short notes on the following : 6

(i) DMA data transfer scheme

(ii) Interrupt driven data transfer scheme

(iii) Bus Contention

7. (a) Describe the string instructions of 8086 micro-processor 6

(b) Describe the Arithmetic instructions of 8086 micro-processor 5