

AU – 2533

Third Semester B. E. (Information Technology) Examination

ASSEMBLY LANGUAGE PROGRAMME

Paper – 3 IT 05

(USC – 10714)

P. Pages : 3

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) Assume suitable data wherever necessary.
(2) Illustrate your answer wherever necessary with the help of neat sketches.
(3) Use pen of Blue/Black ink/refill only for writing the answer book.

1. (a) Evaluate the decimal equivalent for each of the following integer binary numbers :
- (i) 00010101 B 6
- (ii) 10110 B 7
- (b) Explain micro architecture of the 8088/8086 processor and sketch BIU and EU. 7

OR

2. (a) Calculate Physical address where segment base value 1234 H and offset 0022H. 6
- (b) Sketch software model of 8088/8086 and explain function of each register. 7
3. (a) Explain
- (i) MOV
- (ii) XCHG
- (iii) XLAT 6
- (b) Write a program for addition of two number having word sized, result is store in DX register. 7

AU-2533

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OR

4. (a) What is purpose of Addressing mode ? Explain register operand addressing mode. 7
(b) Explain instruction formats used in 8086. 6
5. (a) Explain 8086 instruction set in brief. 7
(b) Explain flag register of 8086 in detail. 7

OR

6. (a) Explain flag related instruction in detail. 7
(b) Explain different types of macro. 7
7. (a) Explain different types of ROM. 7
(b) Explain EPROM interfacing with 8086. 7

OR

8. (a) Why Dynamic RAM needs to be refreshed ? 7
(b) Compare static RAM and Dynamic RAM. 7
9. (a) Draw and explain isolated I/O interface with 8088. 7
(b) Explain the operation of input /output data transfer in 8086. 6

OR

10. (a) Write the sequence of instruction that input the byte of data from input ports at I/O addresses A000H and B000H add these values together, and saves the sum in memory location IO-sum. 6
(b) What is isolated I/O and memory mapped I/O interface used in 8086 system? Also give advantage and disadvantages. 7

11. (a) Draw and explain the internal architecture of 8259 PIC. 7
(b) Explain context switch mechanism in interrupt. 6

OR

12. (a) Explain operation of Interrupt instruction :—
(i) CLI
(ii) STI
(iii) INTn
(iv) IRET 6
(b) Explain in detail Interrupt vector table (IVT) 7

