Code No. 3206

FACULTY OF SCIENCE

B.Sc. V – Semester (CBCS) Examination, November / December 2018

Subject : ELECTRONICS (8085 Microprocessor and Applications)

Paper – VI-A (DSE E-1)

Time : 3 hours   Max. Marks : 60

Part – A (5 X 3 = 15 Marks)
(Short Answer Type)
Note : Answer any Five of the following questions.

1. Define instruction cycle, machine cycle.
2. How many machine cycles does 8085 have, mention them.
3. Explain the IN and OUT instructions of 8085.
4. Explain how stack is implemented in 8085.
5. Find the output at PORT '0' as the following instructions are executed
   MVI A, 93H
   MVI B, B7H
   ADD B
   OUT PORT0
   HLT
6. Specify the register A & B contents and flag status of ZERO flag after execution of following instructions
   MVI A, A9H
   MVI B, 57H
   ADD B
   ORA A
7. Give the circuit diagram of 4 bit R-2R ladder network
8. What are the advantages of closed loop method of control process?

Part – B (45 Marks)
(Essay Answer Type)
Note : Answer all from the following questions.

9. a) Explain the architecture of Intel 8085 microprocessor with functional block diagram.   11

OR

  b) What is address space portioning? Explain and compare memory mapped I/O and I/O mapped I/O methods   11

10. a) List the addressing modes employed in Intel 8085 instructions set and explain them with suitable examples.   8
    What are the addressing modes used in the following instructions   3
    i) CMA   ii) MOV B,C   iii) STA 8050

OR

  b) Explain the significance of AC flag and its use in DAA instruction with example.   8
    Give one example each to one byte, two byte and three byte instruction.   3

Code No. 3206

- 2 -

11 a) Write an assembly language program to multiply two given Hex numbers. Explain the logic.   11

OR

b) Write an assembly language program to find the largest number among the given 10 numbers.   11

12 a) Give the block diagram of 8255 PPI and explain the modes operation of this IC.   12

OR

b) Explain the functioning of Stepper motor. Draw the necessary circuit diagram.   12

******