This question paper contains **3** printed pages]

W—410—2018

FACULTY OF SCIENCE

B.Sc. (Second Year) (Fourth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2018

(CGPA Pattern)

COMPUTER SCIENCE

Paper VIII

(ALP using 8086 Microprocessor)

(MCQ + Theory)

(Saturday, 8-12-2018)   **Time : 2.00 p.m. to 4.00 p.m.**

Time—2 Hours   *Maximum Marks—40*

N.B. :— (i)   Attempt *All* questions.

   (ii)   Assume suitable data if necessary.

   (iii)   Figures to the right indicate full marks.

   (iv)   Draw figures wherever necessary.

MCQ   10

1.   Choose the *correct* answer :

   (1)   Intel 8086 employ .... processing.

   (A)   Serial   (B)   Parallel

   (C)   Distributed   (D)   None of these

   (2)   In arithmetic instructions .... register is used as destination.

   (A)   AX   (B)   BX

   (C)   CX   (D)   All of these

   (3)   In 8-bit signed integer .... bit is used as sign bit.

   (A) D_0 (B) D_3

   (C) D_7 (D)   None of these

P.T.O.

(4) Register CX is used as .... register.

    (A) Counter   (B) Collector

    (C) Carry   (D) None of these

(5) In status register .... flags are used as control flags.

    (A) 04   (B) 02

    (C) 03   (D) 06

(6) .... of instruction identifies the operation is to be performed.

    (A) Opcode   (B) Operand

    (C) Command   (D) Operator

(7) The program written in assembly language is called .... program.

    (A) Source   (B) Object

    (C) Machine   (D) High Level

(8) The assembly language program stored in a file having .... extension.

    (A) OBJ   (B) EXE

    (C) LST   (D) ASM

(9) .... instruction is *not* stack related instruction.

    (A) PUSH   (B) POP

    (C) DAS   (D) PUSHF

(10) In 8086 microprocessor physical address is .... bit.

    (A) 16   (B) 20

    (C) 8   (D) None of these

Theory

2. (*a*) What is microprocessor ? Describe microarchitecture of 8086 microprocessor.   10

Or

(*c*) Explain working of data registers used in 8086 microprocessor.   5

(*d*) Explain various programs and files involved in assembly language program development life cycle.   5

3. (*a*) Explain various steps used in assembly language program development on PC.   10

Or

(*c*) Explain the following instructions :   5

    (*i*) XCHG

    (*ii*) NEG

    (*iii*) ADD

    (*iv*) OR

    (*v*) INC.

(*d*) What is addressing mode ? Explain any *two* addressing modes of 8086 microprocessor.   5

4. Write short notes on (any *two*) :   10

(*a*) Segment registers

(*b*) If...........then...........else structure

(*c*) CALL and RET instructions

(*d*) Compare instructions.