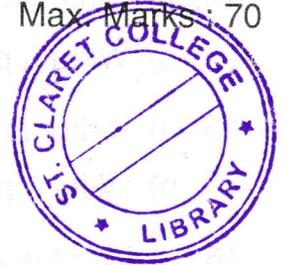**SN – 666**

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V Semester B.C.A. Degree Examination, Nov./Dec. 2017
(CBCS) (F+R) (2016-17 and Onwards)
BCA – 505 : MICROPROCESSOR AND ASSEMBLY LANGUAGE

Time : 3 Hours

Max. Marks : 70

Instruction : *Answer **all** the Sections.*

SECTION – A

Answer **any ten** questions.

(10×2=20)

1. What is Microprocessor ? Give the word length of 8085 Microprocessor.

2. Explain Program Counter and Stack Pointer.

3. Write any two examples for 3 byte Instructions.

4. Explain Instruction DAD D.

5. What is a Subroutine ?

6. Define counting and looping.

7. Define Maskable and Non-maskable interrupts of 8085.

8. Explain SID and SOD Pins of 8085.

9. Compare POP and PUSH Instruction.

10. What are handshake signals ?

11. What is I/O Interfacing ?

12. Find the number of bytes required to store the following instructions :

    1) LXID, 8500

    2) CPI FFH.

SECTION – B

Answer **any five** questions.   (5×10=50)

13. Draw the architecture of 8085 microprocessor and briefly explain.   10

14. a) What are flags ? Draw the format of flag register and explain their function.   5

    b) Write a program to load 07F in the register B and find its 2's complement.   5

15. a) Write an assembly language program to multiply two digit BCD.   5

    b) Write a program to add two-16-bit nos.   5

16. a) What is a stack ? Explain PUSH and POP operation.   6

    b) Explain unconditional Jump Instructions.   4

17. a) Explain the following instructions of 8085 :   6

      i) STAXD

      ii) CMPM

      iii) XCHG.

    b) Explain nesting of subroutine with an example.   4

18. a) Explain CALL and RETURN operations in 8085.   5

    b) Explain RIM and SIM Instructions.   5

19. What is Interrupt ? Explain various interrupts of 8085.   10

20. Write short notes on :

    a) Addressing modes of 8085   5

    b) Data transfer instructions in 8085.   5

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