

**JN-221**

**B. C. A. (Second Semester) Examination, 2018**

**MICROPROCESSOR ASSEMBLY LANGUAGE  
& PROGRAMMING**

*Time Allowed : Three hours*

*Maximum Marks : 75*

*Note : Attempt question of all three sections as directed.*

**Section-A**

**(Objective Type Questions)      5×2=10**

*Note : Attempt all questions. Each question carries 2 mark.*

**I. Choose the correct answer :**

(i) 8085 microprocessor is :

- (a) 16 bit
- (b) 8 bit
- (c) 24 bit
- (d) 32 bit

(ii) Counter that holds addresses of next fetched instruction is called :

- (a) Sequence control register
- (b) Program counter
- (c) Temporary register
- (d) Both (a) and (b)

(iii) Full form of SCAR :

- (a) String scan instruction
- (b) Compare string instructions
- (c) Bit scan formed
- (d) Shift instruction position

(iv) Length of data bus in 8085  $\mu$ p :

- (a) 8 bit
- (b) 4 bit
- (c) 16 bit

(d) 32 bit

(v) Full form of DOS :

(a) disc operating system

(b) disc open system

(c) disc operating series

(d) disc closed system

### Section-B

(Short Answer Type Questions) 5×4=20

*Note : Attempt all five questions. One question from each unit is compulsory. Each question carries 4 marks.*

#### Unit-I

2. What are the instructions set in 8085  $\mu$ p .

Or

Explain the need and important of a microprocessor.

#### Unit-II

3. Explain the format of 16 bit and 32 bit instructions.

Or

Explain PUSH and POP with suitable example.

#### Unit-III

4. What domain by BCD and ASCII arithmetic instruction.

Or

Write a short notes on shift instruction.

#### Unit-IV

5. What do mean by interrupts?

Or

What do mean by carry flag bit?

#### Unit-V

6. Write a short notes on any two :

(a) Assembles

(b) Stack memory

(c) ASCII

(d) Do while

(Long Answer Type Questions) 5×9=45

Or

*Note : Attempt all five questions. One question from each unit is compulsory. Each question carries 9 marks.*

Describe the following instruction with an example :

### Unit-I

7. Describe microprocessor and its functioning with the help of block diagram showing address data and control bus structure. <https://www.mcbonline.com>

- (a) Substraction
- (b) Addition
- (c) Comparision
- (d) Multiplication

Or

What is an operating system? Describe its basic functions.

### Unit-IV

10. Explain REPEAT-UNTIL and WHILE WEND loops with examples.

Or

What is procedure? Explain CAL and RET with example.

### Unit-II

8. Write brief note on Protected addressing modes.

Or

Explain the load effective addressing along with procedure of string data transfer and input, output instruction.

### Unit-V

11. Write notes on any two of the following :

- (a) Assembler and compiler
- (b) Stack memory addressing
- (c) Test shift and rotate instruction
- (d) Unconditional jump and conditions jump

### Unit-III

9. Explain SCAS (String Scan) and CMPS (String Compare) instruction with examples.