



Roll No.

21-3-10

DOON UNIVERSITY, DEHRADUN

**Mid Semester Examination, 2018
Academic Year 2017-18 (Even Semester)**

SCHOOL OF TECHNOLOGY

**Integrated MCA, Sixth/Eighth Semester
STM-528: Microprocessors and Applications**

[Back paper – IV semester]

Time Allowed: 2 hours

Maximum Marks: 30

SECTION A (Attempt any three)

(Total Marks: 3 × 2 = 6)

- 1 Name the pointers and index registers.
- 2 Describe the Execution Unit of 8086 CPU.
- 3 What are IN and OUT instructions?
- 4 Define clock cycle.

SECTION B

(Total Marks: 4 × 3 = 12)

- 1 Describe the 8086 flag register.
- 2 Differentiate between immediate and register addressing modes with examples.
- 3 Illustrate the difference between SUB and SBB instructions with examples.
- 4 What is the role of following 8086 signals?
 - a) QS_0 and QS_1
 - b) S_0 , S_1 and S_2

SECTION C (Attempt any two)

(Total Marks: 2 × 6 = 12)

- 1 Explain shift and rotate instructions.
- 2 Explain various unconditional and conditional branch instructions.
- 3 Draw the pin diagram of EPROM-2716.