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NEPNY—08—2023

FACULTY OF SCIENCE AND TECHNOLOGY

M.Sc. C.S. (NEP) (First Year) (First Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

COMPUTER SCIENCE

SCMPSC-401

(Computer Architecture and Microprocess)

(Wednesday, 20-12-2023)

Time : 10.00 a.m. to 1.00 p.m.

Time—3 Hours

Maximum Marks—80

N.L. :- (i) Question paper consists of 6 questions, each of 20 marks.

(ii) Question No. 1 is compulsory.

(iii) Solve any *three* from Q. 2 to Q. 6.

1. Attempt the following questions :

20

(a) Explain evolution of computer.

(b) Explain data representation.

(c) Explain high speed cache memory.

(d) Explain features of 8085.

P.T.O.

2. Attempt the following questions : 20
- (a) Draw and explain architecture of 8085 microprocessor.
 - (b) Differentiate between RISC and CISC.
3. Attempt the following questions : 20
- (a) What is memory ? Explain virtual memory.
 - (b) Describe fixed point signed binary number.
4. Attempt the following questions : 20
- (a) Explain fixed point algorithm for addition and subtraction.
 - (b) Discuss addressing mode 8086 microprocessor.
5. Attempt the following questions : 20
- (a) Describe microprogrammed control unit.
 - (b) Explain in detail Register level and Processor level.
6. Attempt the following questions : 20
- (a) Explain in detail pin diagram of 8086.
 - (b) What is interrupt ? Explain its types.