Graphic Era
HILL UNIVERSITY
Established by an Act of the State Legislature of Uttarakhand (Adhiniyam Sankhya 12 of 2011)
University under section 2(f) of UGC Act. 1956

Term Evaluation (Even) Semester Examination March 2025

Roll no...................................

Name of the Course: B.Tech ECE
Semester: IV
Name of the Paper: Microcontrollers
Paper Code: TEC-403
Time: 1.5 hour

Maximum Marks: 50

Note:
- *(i)* Answer all the questions by choosing any one of the sub-questions
- *(ii)* Each question carries 10 marks.

(10 Marks) (CO1)

Q1.
a. Explain features of 8085 in detail.

OR

b. What are the various registers in 8085? Explain Flag register of 8085.

(10 Marks) (CO1)

Q2.
a. Explain the function of the following 8085 pins:-
- HOLD
- SID
- READY
- IO/M'

OR

b. What are Interrupts? Explain Hardware interrupts of 8085.

(10 Marks) (CO1,CO2)

Q3.
a. Design a microprocessor system for the 8085 microprocessor such that it should contain two 8K *8 RAM.

OR

b. Explain the features of 8051 microcontroller. Differentiate between Harvard and Von Neumann architecture.

(10 Marks) (CO2)

Q4.
a. Explain PSW register of 8051 microcontroller. Also differentiate CISC and RISC architecture.

OR

b. Draw the pin diagram of 8051.

(10 Marks) (CO2)

Q5.
a. Draw and explain internal RAM organization of 8051.

OR

b. Differentiate between microprocessor and microcontroller with proper diagram.