



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

InSem Examination-II Summer 2025	
Exam Seat No.:	
Academic Year: 2024-2025	Semester: IV
Class: SY	Program: B.Tech
Branch Code: ETC	Pattern: 2023
Name of Course: Microcontrollers	Course Code: 2302212
Max. Marks: 30	Duration: 1.15 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. Answer to each new question is to be started on a new page.
2. Assume suitable data wherever required, but justify it.
3. Draw the neat labelled diagrams, wherever necessary.
4. The last column indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Marks CO

Question No. 1

- 1 a) Compare RISC with CISC. (7) CO1

Question No. 2

- 2 a) Explain the functions of Reset & ALE pins of 8051. (8) CO1

OR

- 2 b) Explain the functioning of PSW register with a neat diagram. (8) CO1

Question No. 3

- 3 a) Explain with suitable example the assembly language instruction used to perform following logical operations: AND, OR, Complement (7) CO2

Question No. 4

- 4 a) Describe the functioning of Indirect addressing mode of 8051. Write an assembly language program to copy the value 22H into RAM locations 50H to 55H using indirect addressing mode. (8) CO2

OR

- 4 b) Write an assembly language program to get the x value from P1 and send its square to P2, continuously for 8051 microcontroller. (8) CO2

..... End of question paper.....