



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: INT	Pattern: 2023
Name of Course: Computer Organization & Architecture	Course Code: 2308216
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. This question paper contains __1__ page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Marks CO

Question No. 1

- 1 a) List Advantages and Disadvantages of Cache Memory (3) CO1
1 b) Explain the Structure of the IAS Computer (4) CO1

Question No. 2

- 2 a) Draw and explain the Harvard Architecture in computer systems. (4) CO1
2 b) Explain User-Visible Registers (4) CO1

Group OR

- 2 c) List and explain the different types of Read-Only Memory (ROM). (4) CO1
2 d) List and explain the functions of buses in a computer system. (4) CO1

Question No. 3

- 3 a) Explain One and Two Address Instructions with Example (3) CO2
3 b) What are the different types of interrupts in a computer system? Explain each type (4) CO2

Question No. 4

- 4 a) What are addressing modes in computer architecture? Explain three distinct addressing modes with examples. (4) CO2
4 b) Explain following ALP tool- Loader and Linker (4) CO2

Group OR

- 4 c) Explain the ASSUME, DB, and END directives in Assembly Language Programming, providing appropriate examples for each. (4) CO2
4 d) Differentiate between an Interrupt and an Exception. (4) CO2

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