**Computer Organisation: Theory**

At the end of this course, each student should be able to:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | PSO1 | PSO2 | PSO3 | PSO4 |
| Computer Organisation | CO1 | 2 | 2 |  | 1 |
| CO2 | 1 | 3 |  |  |
| CO3 | 1 | 3 |  |  |
| CO4 | 1 | 3 | 1 |  |
| CO5 | 1 | 3 |  | 1 |
| CO6 | 1 | 3 |  |  |

CO1: Develop the ideas about Digital computer’s Hardware and Software, role of Operating System and compiler. [K3]

CO2: Illustrate the Instruction formats, Addressing modes, Instruction decoding and Instruction execution cycle. [K2]

CO3: Describe ANSI representation of data, Addition, Subtraction, Multiplication techniques, Restoring type and Non-restoring type, Floating point arithmetic, rounding techniques [K2]

CO4: Explain Memory Hierarchy and different access techniques, Main memory, Secondary memory and Cache Memory concepts, Different mapping techniques and Replacement Algorithms, Virtual memory [K2]

CO5: Investigate different aspects of Instruction interpretation, and design issues of Hardwired and Micro-programmed control design, and nano-programming [K4]

CO6: Develop the concepts of I/O interface and drivers, Synchronous and Asynchronous I/O transfer, Interrupt driven I/O transfer and Direct Memory Access [K5]

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|  |  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| Computer Organisation | CO1 | 3 |  |  |  |  | 1 |  |  |  |  |  | 1 |
| CO2 | 2 | 3 | 1 |  |  |  |  |  |  |  |  |  |
| CO3 | 3 | 2 | 2 | 2 |  |  |  |  |  |  |  |  |
| CO4 | 2 |  |  |  | 3 |  |  |  |  |  |  |  |
| CO5 | 3 | 1 | 2 |  | 2 |  |  |  |  |  |  |  |
| CO6 | 3 |  | 2 |  | 2 |  |  |  |  |  |  |  |