

**Curriculum plan (Odd Semester 2023-24)**

**Teacher Name: Neha Singh**

**Paper name: Microprocessor**

**Class type: BSc. (h) Computer Science III semester**

**Paper shared with: NIL**

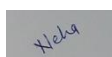
S.No		Unit to be taken
1	August	<p><b>Unit- 1 Microprocessor Architecture</b></p> <p><b>Chapter 2: The Microprocessor And Its Architecture</b> Internal Microprocessor Architecture, Real Mode Memory Addressing, Introduction to Protected Mode Memory Addressing, Flat Mode Memory</p>
2.	September	<p><b>Unit- 1 Microprocessor Architecture</b></p> <p><b>Chapter 3: Addressing Modes</b> Data-Addressing Modes, Program Memory-Addressing Modes, Stack Memory-Addressing Modes</p> <p><b>Chapter 4: Data Movement Instructions</b> MOV Revisited, PUSH/POP, Load-Effective Address, String Data Transfers, Miscellaneous Data Transfer Instructions</p> <p><i>Quiz, Test, Assignment 1</i></p>
3.	October	<p><b>Unit-2 Microprocessor Programming &amp; Unit 4: Data transfer schemes:</b></p> <p><b>Chapter 5: Arithmetic And Logic Instructions</b> Addition, Subtraction, and Comparison, Multiplication and Division, BCD and ASCII Arithmetic, Basic Logic Instructions, Shift and Rotate, String Comparisons</p> <p><b>Chapter 6: Program Control Instructions</b> The Jump Group, Controlling the Flow of the Program, Procedures, Introduction to Interrupts, Machine Control and Miscellaneous Instructions,</p> <p><b>Unit- 3 Interfacing</b></p> <p><b>Chapter 9: 8086/8088 Hardware Specifications</b> Pin-Outs and the Pin Functions, Clock Generator (8284A), Bus Buffering and Latching, Bus Timing</p> <p><i>Quiz, Test, Assignment 2</i></p>
4.	Novemeber	<p><b>Unit- 3 Interfacing</b></p> <p><b>Chapter 10: Memory Interface</b> Memory Devices, Address Decoding, 8088 and 80188 (8-Bit) Memory Interface, 8086, 80186, 80286, and 80386SX (16-Bit) Memory Interface</p> <p><b>Chapter 11: Basic I/O Interface</b> Introduction to I/O Interface, I/O Port Address Decoding, The</p>

		<p>Programmable Peripheral Interface, 8254 Programmable Interval Timer, 16550 Programmable Communications Interface</p> <p><b>Unit 5 Microprocessor controllers:</b></p> <p><b>Chapter 12: Interrupts</b> Basic Interrupt Processing, Hardware Interrupts, Expanding the Interrupt Structure, 8259A Programmable Interrupt Controller</p> <p><b>Chapter 13: Direct Memory Access And DMA-Controlled I/O</b> Basic DMA Operation, The 8237 DMA Controller</p> <p><i>Test, Presentation</i></p>
5.	Decemeber	<p><b>Unit-6 Advance microprocessor architecture:</b></p> <p><b>Chapter 18: The Pentium and Pentium Pro Microprocessors</b> Introduction to the Pentium Microprocessor, Introduction to the Pentium Pro Microprocessor</p> <p><i>Revision</i></p>

#### References

1. Brey, B.B.(2009). **The Intel Microprocessors: Architecture, Programming and Interfacing. 8<sup>th</sup> edition. Pearson Education.**
2. Triebel, W.A., & Singh, A. (2002). **The 8088 and 8086 Microprocessors Programming, Interfacing, Software, Hardware and Applications. 4th edition. Pearson Education.**

Name of teacher: Neha Singh



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