

| S. No. | Topic  | Chapter/ Section  | Reference |
|--------|--|---|-----------|
| 1      | Microprocessor Architecture                      | Chapter 2: 2.1 – 2.3, 2.5   | [1]       |
| 2      | Microprocessor Architecture (Addressing Modes)   | Chapter 3   | [1]       |
| 3      | Microprocessor Programming (Instruction Format ) | Chapter 4 (upto 4.5)  | [1]       |
| 4      | Microprocessor Programming                       | Chapter 6   | [1]       |
| 5      | Interfacing                                      | Chapter 9 (upto 9.4)  | [1]       |
| 6      | Memory Interfacing                               | Chapter 10 (upto 10.4)  | [1]       |
| 7      | I/O Interfacing                                  | Chapter 11;<br>11.1 (upto page no. 384)<br>11.2,<br>11.3 (upto page no. 399, 414-421)<br>11.4 (upto page no. 429)<br>11.5 | [1]       |
| 8      | Interrupts                                       | Chapter 12 (upto page no. 475)  | [1]       |
| 9      | DMA & DMA controlled I/O                         | Chapter 13: 13.1 and 13.2   | [1]       |
| 10     | Microprocessor Architecture                      | Chapter 18<br>18.1 (upto page no. 734-738)<br>18.5 (upto page no. 748-750, 754-756)                                       | [1]       |

**References:**

- [1] Barry B. Brey : The Intel Microprocessors : Architecture, Programming and Interfacing. Pearson Education, Eighth Edition.

Note: Chapters 5 and 7 are to be covered in the lab classes.

**506 – Lab based on Microprocessor assembly Language (Paper 503)**

1. Write a program for 32 bit Binary Addition, subtraction, division and Multiplication.
2. Write a program for 32 bit BCD Addition and subtraction.
3. Write a program for Sorting.
4. Write a program for linear search and binary search.
5. Write a program to add and subtract two arrays.
6. Write a program for binary to ascii conversion.
7. Write a program for ascii to binary conversion.

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(DR. AJAY JAISWAL)

(S. K. Gupta)  
(Sudhir K. Gupta)