

Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India (Autonomous Institute Affiliated to University of Mumbai)

| Course Code | Course Name | Teaching Scheme (Hrs/week) | | | Credits Assigned | | | |
|----------------|--------------------|-------------------------------|------|-----------|------------------|---|-----|-------|
| Code | | L | T | P | L | T | P | Total |
| CPCL501 | Microprocessor Lab | | - | 2 | | | 1 | 1 |
| | | Examination Scheme | | | | | | |
| | | ISE | | | ESE | | | Total |
| | | | | Practical | | 0 | ral | |
| | | 4 | 40 2 | | 0 - | | 60 | |

| Pre-requisite Course Codes | | CPC501(Microprocessor) | | | | | |
|---|-----|---|--|--|--|--|--|
| At end of successful completion of this course, student will be able to | | | | | | | |
| | CO1 | Create assembly language for 8086 based system. | | | | | |
| | CO2 | Create mixed language programs for 8086 based system. | | | | | |
| Course Outcomes | CO3 | Use interrupt structure of 8086. | | | | | |
| Course Outcomes | CO4 | Illustrate use of various addressing modes of 8086 | | | | | |
| | CO5 | Use interfacing applications of peripheral controllers wi | | | | | |
| | | 8086 microprocessor. | | | | | |

| Exp. No. | Experiment Details | Ref. | Marks | |
|-------------|---|-------|-------|--|
| 1 | Program using data transfer instructions. | 1,2,4 | 5 | |
| 2 | Program to study flag operation in 8086. | 1,2,4 | 5 | |
| 3 | Program using arithmetic instruction. | 1,2,4 | 5 | |
| 4 | Program using logical instructions. | 1,2,4 | 5 | |
| 5 | Program using subroutines. | 1,2,4 | 5 | |
| 6 | Program using various addressing modes. | 1,2,4 | 5 | |
| 7 | Peripheral interfacing applications. | 1,3 | 5 | |
| 8 | Interfacing of 8086 with peripheral chips like 8255 | 1,3 | 5 | |
| Total Marks | | | | |

References:

- [1] Douglas Hall, "Microprocessor and Interfacing", Tata McGraw Hill.
- [2] John Uffenbeck, "8086/8088 family: Design Programming and Interfacing", PHI.
- [3] Liu & Gibson, "Microcomputer Systems: 8086/8088 family Architecture, Programming and Design", PHI Publication.
- [4] Barry B. Brey, "Intel Microprocessors", Pearson Education India, 8th Edition.