

SARDAR PATEL UNIVERSITY
Programme: B.Sc (Instrumentation-Vocational)
Semester: VI
Syllabus with effect from: June - 2013

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| Paper Code: US06CINV05 | Total Credit: 3 |
| Title of Paper: 8-Bit Microprocessor Programming & Applications | |

| Unit | Description in detail | Weightage (%) |
|------|---|---------------|
| I | Arithmetic operations related to memory, Logical operations: Rotate and compare and related programs, Dynamic Debugging. | 25% |
| II | Counter and time Delays, Hexadecimal counter, Modulo-10 counter, Pulse timing for flashing lights, Debugging counter and time delay programs, Stack Subroutines, Conditional and Non conditional CALL and Return instructions, Advance Subroutine concept and related examples. | 25% |
| III | Code conversion: BCD to Binary, Binary to BCD, BCD to Seven Segment, Binary to ASCII and ASCII to Binary. | 25% |
| IV | BCD Addition, BCD Subtraction, Introduction to Advanced instructions and Applications, Multiplication and Subtraction with carry, the 8085 interrupts, Interrupts instructions and their utilization and their Examples. | 25% |

Basic Text & Reference Books:

- Microprocessor, Architecture, Programming and applications with the 8085/8080. By :- Ramesh S. Gaonkar

