

**BHARATHIAR UNIVERSITY, COIMBATORE-641 046**  
**B.Sc. PHYSICS WITH COMPUTER APPLICATIONS DEGREE COURSE**  
**(revised practical syllabi with effect from 2015-16 onwards)**

**NOTE: The syllabi of the Practical – IV Digital and Microprocessor for B.Sc. Physics with (C.A.) degree for the candidates admitted from the academic year 2015-16 is revised and there is no change in the existing scheme of examination and syllabi of the remaining papers.**

**PRACTICAL – IV : DIGITAL AND MICROPROCESSOR**  
**(EXAMINATION AT THE END OF SIXTH SEMESTER)**  
**ANY TWELVE (12) EXPERIMENTS ONLY**

1. Verification of Truth tables of IC gates: OR, AND, NOT, XOR, NOR and NAND.
2. NAND as universal building block- AND, OR, NOT
3. Verification of De Morgan's theorem.
4. Boolean Algebra – problem solving
5. Study of RS Flip-Flop.
6. Study of Shift –Registers –Serial in Parallel out
7. Decade counter using 7490.
8. Half Adder
- 9 Full Adder
10. Half Subtractor
11. Full Subtractor.
12. 4 BIT – Binary Adder & Subtractor using 7483.
13. Code converter ( Binary to gray and vice versa) & Seven segment Decoder
14. Binary Counter using 7493.
15. Parity check logic.
16. Up/Down Counter using 74190
17. 8085 ALP for 8 bit Addition and Subtraction
18. 8085 ALP for 8 Bit Multiplication
19. 8085 ALP for 8 Bit Division
20. 8085 ALP for finding the Biggest number element in the array