2141
PAPER - IV : PRACTICALS

NOTE : Students are required to perform all the experiments selecting one from each part.
MARKS DISTRIBUTION
PART - A	**: 10**
PART - B	**: 10**
PART -C (POWERPOINT REPRESENTATION)	**: 10**
VIVA	**: 10**
Two RECORDS (Topic covered Part-A & part-B)	**: 10**

PART - A

1. Programs based on C operators - Arithmetic , Relational , Conditional , sizeof , Logical , Bitwise, Increment /Decrement Operators
2. Programs based on to calculate the lvalue of the given Formulas. For Exp.
3. Programs based on Conversion formula. For exp.
    Fahrenheit to Celsius conversion.
    Convert seconds to hours, minutes and seconds.
    Convert centimetre to meter , inches.
4. Program based on selective structure.

5. Program based on Repetitive structure.
    Using while Loop.
    Using do .. while loop.
    Using for loop.
    Using combined loop.
    Using nested loops
6. Programs using break and continue statements within loop.
7. Programs Using 1D Array. For Exp.
8. Programs Using 2D Array. For Exp.

9. Programs using string handling function.
10. Programs using functions.
        Using function and array.
        Using recursive function.
        Using call by value and call by reference.
        Using function with arguments no return values.
        Using function with arguments with return values.
11. Program using Pointers. Using
        pointer arithmetic. Using
        pointer and 1D array. Using
        pointer and functions.
12. Programs using structure.

13. Program using C preprocessor.
14. Program based on files.
        Using File management commands.
        To display contents of a file.
        To copy contents of a file from one to another

PART - B

1. Logic circuit and the function of basic logic gates and verify their truth tables.
2. Logic circuit and the function of universal gates.
3. Logic circuit and the fuction of XOR and XNOR gates.
4. To study the different logical expressions and their simplification.
5. To familiarize and verify the Boolean algebraic functions.
6. Conversion of positional number system from one base to another base.
7. Binary to gray and gray to binary code conversion.
8. Karnaugh map simplifications related Boolean functions.
9. Finding the Maxterm of Boolean function.
10. Finding the Minterm of Boolean function.
11. conversion of maxterm to minterm and vice versa.
12. Logic circuit and working of half adder.
13. Logic circuit and working of Full adder.
14. Logic circuit and working of parallel binary adder.
15. Logic circuit and working of Decoder circuits.(BCD to Decimal)
16. Logic circuit and working of encoder circuits.(Decimal to BCD)
17. Logic circuit and working of multiplexer.(4 X1) (8 X 1)
18. Logic circuit and working of demultiplexer (1 X 4) (1 x8)

19. Logic circuit and working of Edge Triggered Flip flops circuits.
    S-R, D,J-K,T

20. Logic circuit and working of Master Slave Flip Flop circuits.
21. Logic circuit and working of Shift registers.
    serial , parallel and Bi directional.
22. Logic circuit and working of Counters.
    Asynchronous , Synchronous and Up/down , Decade Counters.

PART - C

Power point presentation on the topics covered in Paper -I , Paper - II ,Paper -III as assigned by the concerned teacher.