# J.H. Govt. P.G. College, Betul (M.P.)

## BCA I Year (Major) Paper-I Practical List

### Digital Electronics

1. Verification and interpretation of truth table for AND, OR, NOT gates.
2. Verification and interpretation of truth table for NAND, NOR gates.
1. Verification and interpretation of truth table for Ex-OR, Ex-NOR gates.
2. Study of half adder using XOR and NAND gates and verification of its operation.
3. Study of full adder using XOR and NAND gates and verification of its operation.
4. Study of half subtractor and verification of its operation.
5. Study of full subtractor and verification of its operation.
6. Realization of logic functions with the help of NAND –Universal Gates.
7. Realization of logic functions with the help of NOR –Universal Gates.
10. Verify the truth table of RS flip-flops using NAND and NOR gates.
11. Verify the truth table of JK flip-flops using NAND and NOR gates.
12. Verify the truth table of T and D flip-flops using NAND and NOR gates.
13. Implementation of 4x1 multiplexer using logic gates.
14. Implementation of 1x4 multiplexer using logic gates.
15. Verify Gray to Binary conversion using NAND gates only.

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## BCA I Year  Major Paper-II Practical List
### Programming Methodology & Data Structure

1. Write a C++ program to swap the content of two variables.
2. Write a C++ program for finding the roots of a Quadratic Equation.
3. Write a C++ program to find area of a circle, rectangle, squareusing switch case.
4. Write a C++ program to print table of any number.
5. Write a C++ program to print Fibonacci series.
6. Write a C++ program to find factorial of a given number using recursion.
7. Write a C++ program to convert decimal number into equivalent binary number.
8. Write a C++ program to check given string is palindrome or not.
9. Write a C++ program to printdigits of enterd number in reverse order.
10. Write a C++ program to print sum of two matrices.
11. Write a C++ program to print multiplication of two matrices.
12. Write a C++ program to generate even/odd series from 1 to 100.
13. Write a C++ program Whether a given number is prime or not.
14. Write a C++ program for call by value and call reference.
15. Write a C++ program to create a pyramid structure-

        1
        12
        123
        1234

16. Write a C++ program to implement single inheritance.
17. Write a C++ program to find largest element from an array.
18. Write a C++ program for Linear search.
19. Write a C++ program for Bubble sort.
20. Write a C++ program to implement linked list.