**5 MARKS QUESTION**

**IF ELSE EXERCISES**

1. Write a C program to find maximum between two numbers.
2. Write a C program to find maximum between three numbers.
3. Write a C program to check whether a number is negative, positive or zero.
4. Write a C program to check whether a number is divisible by 5 and 11 or not.
5. Write a C program to check whether a number is even or odd.
6. Write a C program to check whether a year is leap year or not.
7. Write a C program to check whether a character is alphabet or not.
8. Write a C program to input any alphabet and check whether it is vowel or consonant.
9. Write a C program to input any character and check whether it is alphabet, digit or special character.
10. Write a C program to check whether a character is uppercase or lowercase alphabet.
11. Write a C program to input week number and print week day.
12. Write a C program to input month number and print number of days in that month.
13. Write a C program to count total number of notes in given amount.
14. Write a C program to input angles of a triangle and check whether triangle is valid or not.
15. Write a C program to input all sides of a triangle and check whether triangle is valid or not.
16. Write a C program to check whether the triangle is equilateral, isosceles or scalene triangle.
17. Write a C program to find all roots of a quadratic equation.
18. Write a C program to calculate profit or loss.
19. Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:  
    Percentage >= 90% : Grade A  
    Percentage >= 80% : Grade B  
    Percentage >= 70% : Grade C  
    Percentage >= 60% : Grade D  
    Percentage >= 40% : Grade E  
    Percentage < 40% : Grade F
20. Write a C program to input basic salary of an employee and calculate its Gross salary according to following:  
    Basic Salary <= 10000 : HRA = 20%, DA = 80%  
    Basic Salary <= 20000 : HRA = 25%, DA = 90%  
    Basic Salary > 20000 : HRA = 30%, DA = 95%
21. Write a C program to input electricity unit charges and calculate total electricity bill according to the given condition:  
    For first 50 units Rs. 0.50/unit  
    For next 100 units Rs. 0.75/unit  
    For next 100 units Rs. 1.20/unit  
    For unit above 250 Rs. 1.50/unit  
    An additional surcharge of 20% is added to the bill

**Switch case Exercises**

1. Write a C program to print day of week name using switch case.
2. Write a C program print total number of days in a month using switch case.
3. Write a C program to check whether an alphabet is vowel or consonant using switch case.
4. Write a C program to find maximum between two numbers using switch case.
5. Write a C program to check whether a number is even or odd using switch case.
6. Write a C program to check whether a number is positive, negative or zero using switch case.
7. Write a C program to find roots of a quadratic equation using switch case.
8. Write a C program to create Simple Calculator using switch case.

**Loop programming exercises**

1. Write a C program to print all natural numbers from 1 to n. - using [while loop](https://codeforwin.org/2015/06/c-program-to-print-numbers-from-1-to-n-using-while-loop.html)
2. Write a C program to print all natural numbers in reverse (from n to 1). - using [while loop](https://codeforwin.org/2015/07/c-program-to-print-all-natural-numbers.html)
3. Write a C program to print all alphabets from a to z. - using [while loop](https://codeforwin.org/2015/07/c-program-to-print-all-alphabets-using-while-loop.html)
4. Write a C program to print all even numbers between 1 to 100. - using [while loop](https://codeforwin.org/2015/06/c-program-to-print-all-even-numbers-using-while-loop.html)
5. Write a C program to print all odd number between 1 to 100.
6. Write a C program to find sum of all natural numbers between 1 to n.
7. Write a C program to find sum of all even numbers between 1 to n.
8. Write a C program to find sum of all odd numbers between 1 to n.
9. Write a C program to print multiplication table of any number.
10. Write a C program to count number of digits in a number.
11. Write a C program to find first and last digit of a number.
12. Write a C program to find sum of first and last digit of a number.
13. Write a C program to swap first and last digits of a number.
14. Write a C program to calculate sum of digits of a number.
15. Write a C program to calculate product of digits of a number.
16. Write a C program to enter a number and print its reverse.
17. Write a C program to check whether a number is palindrome or not.
18. Write a C program to find frequency of each digit in a given integer.
19. Write a C program to enter a number and print it in words.
20. Write a C program to print all ASCII character with their values.
21. Write a C program to find power of a number using for loop.
22. Write a C program to find all factors of a number.
23. Write a C program to calculate factorial of a number.
24. Write a C program to find HCF (GCD) of two numbers.
25. Write a C program to find LCM of two numbers.
26. Write a C program to check whether a number is Prime number or not.
27. Write a C program to print all Prime numbers between 1 to n.
28. Write a C program to find sum of all prime numbers between 1 to n.
29. Write a C program to find all prime factors of a number.
30. Write a C program to check whether a number is Armstrong number or not.
31. Write a C program to print all Armstrong numbers between 1 to n.
32. Write a C program to check whether a number is Perfect number or not.
33. Write a C program to print all Perfect numbers between 1 to n.
34. Write a C program to check whether a number is Strong number or not.
35. Write a C program to print all Strong numbers between 1 to n.
36. Write a C program to print Fibonacci series up to n terms
37. Write a C program to find one's complement of a binary number.
38. Write a C program to find two's complement of a binary number.
39. Write a C program to convert Binary to Octal number system.
40. Write a C program to convert Binary to Decimal number system.
41. Write a C program to convert Binary to Hexadecimal number system.
42. Write a C program to convert Octal to Binary number system.
43. Write a C program to convert Octal to Decimal number system.
44. Write a C program to convert Octal to Hexadecimal number system.
45. Write a C program to convert Decimal to Binary number system.
46. Write a C program to convert Decimal to Octal number system.
47. Write a C program to convert Decimal to Hexadecimal number system.
48. Write a C program to convert Hexadecimal to Binary number system.
49. Write a C program to convert Hexadecimal to Octal number system.
50. Write a C program to convert Hexadecimal to Decimal number system.
51. Write a C program to print Pascal triangle upto n rows.
52. Star pattern programs - Write a C program to print the given star patterns.
53. Number pattern programs - Write a C program to print the given number patterns.