C programming Practical questions

1. Write a program to print all prime numbers between two given numbers.
2. Write a program to find the sum of digits of a number until the sum becomes a single digit.
3. Write a program to print a pyramid pattern of numbers for a given n.
4. Write a program to print the prime factors of a given number.
5. Write a program to find the missing number in an array of integers from 1 to n
6. Write a program to generate the first n Fibonacci numbers.
7. Write a program to reverse a given integer.
8. Write a program to find the largest and smallest elements in an array.
9. Write a program to find the transpose of a given matrix.
10. Write a function to check whether a string is a palindrome.
11. Write a program to swap two numbers using call-by-value and call-by-reference
12. Write a program to find the sum of all elements in an array using pointers.
13. Write a program to reverse a string using pointers.
14. Write a program to find the length of the longest increasing subsequence in an array.
15. Write a program to implement basic string compression (e.g., "aaabbcc" becomes "a3b2c2").
16. Write a recursive function to calculate the GCD of two numbers.
17. Write a program to check if a number is a power of 2 using bitwise operators.
18. Write a program to reverse the bits of a given integer.
19. Write a program to count the number of vowels and consonants in a given string.
20. Write a program to calculate the factorial of a number using both iterative and recursive methods.
21. Write a program to read from a file and display its contents on the screen.
22. Write a program to write student information (name, roll number, marks) to a file and read it back.
23. Write a program to count the number of words and characters in a file.
24. Write a program to copy the contents of one file to another.
25. Write a program to append text to an existing file.