COMPILER CONSTRUCTION

LAB MID TERM

**Q1:** Describe functioning of regex C# library , give examples of patterns,separators and anchors e.t.c?

Ans:

Regular expressions are powerful tools for pattern matching and manipulation of strings. Here are some key components and their descriptions:

**Regex Class**: This is the main class in the namespace. It provides a set of methods for working with regular expressions.

**Ex:** using System.Text.RegularExpressions;

**Literal Characters**: These match the exact character(s) specified. For example, abc will match the sequence of characters 'a', 'b', and 'c'.

**Character Classes:** Enclosed in square brackets [], they match any one of the characters within the brackets. For example, [aeiou] will match any vowel.

**Quantifiers:** These specify how many times a character or group can occur. For example, a\* matches zero or more 'a's, and a+ matches one or more 'a's.

**Anchors:**

^ matches the start of a line.

$ matches the end of a line.

**Escape Sequences:** These allow you to match special characters. For example, \d matches any digit, and \s matches any whitespace character.

**Separators**: Pipe |: Represents the OR operator. For example, a|b will match either 'a' or 'b'.

**Anchors**:^ and $ are used to match the start and end of a line respectively.

**Quantifiers:**

\* matches 0 or more occurrences.

+ matches 1 or more occurrences.

? matches 0 or 1 occurrence.