**LAB EXERCISES**

**EX.NO:10**

**USING FILE**

**AIM:**

**To write a C program to count the number of characters, words and lines in a file.**

**PROCEDURE:**

1. **Start** program
2. **FILE pointer** → FILE \*fp;
3. **Variables:** ch, char Count, word Count, line Count, in Word
4. **Open file** → f open("filename.txt", "r")
5. **Check file** → if not open, show error
6. **Loop:** read each char → fgetc(fp)
7. **Count:**
   * Every char → char Count++
   * Newline → line Count++
8. **Words:**
   * If space/newline/tab → in Word = 0
   * Else if in Word == 0 → in Word = 1, word Count++
9. **Close** file → f close(fp)
10. **Print** counts → characters, words, lines.

**PROGRAM:**

**#include <stdio.h>**

**#include <stdlib.h>**

**void main()**

**{**

**FILE \*f;**

**char ch;**

**int characters = 0, words = 0, lines = 0;**

**int in\_word = 0;**

**clrscr();**

**f = fopen("sample.txt", "r");**

**if (f == NULL) {**

**printf("\nUnable to open file");**

**getch();**

**exit(0);**

**}**

**while ((ch = fgetc(f)) != EOF) {**

**characters++;**

**if (ch == '\n') {**

**lines++;**

**}**

**if (ch == ' ' || ch == '\t' || ch == '\n') {**

**in\_word = 0;**

**} else if (in\_word == 0) {**

**in\_word = 1;**

**words++;**

**}**

**}**

**fclose(f);**

**printf("\nNumber of characters = %d", characters);**

**printf("\nNumber of words = %d", words);**

**printf("\nNumber of lines = %d", lines);**

**getch();**

**}**

**RESULT:**

**Thus the above C program is executed and the output is obtained.**