Q-1)



Q-2)



Q-3)

###### void main( )

###### {

###### int a[10][10], i, j;

###### srand(time(NULL));

###### for (i = 0; i < 10; i++)

###### for (j = 0; j < 10; j++)

###### a[i][j] = rand() % 20 + 1;

###### 

###### for (i = 0; i < 10; i++) {

###### for (j = 0; j < 10; j++) {

###### printf(" %d", a[i][j]);

###### if (a[i][j] == 20)

###### goto Done;

###### }

###### printf("\n");

###### }

###### Done: printf("\n");

###### }

Q-4)

Consider the following program:

/\* COUNT

This program counts the number of characters and lines in a text file.

INPUT: Text File

OUTPUT: Number of characters and number of lines.

\*/

1 main(int argc, char \*argv[])

2 {

3 int numChars = 0;

4 int numLines = 0;

5 char chr;

6 FILE \*fp = NULL;

7

8 if (argc < 2)

9 {

10 printf(“\nUsage: %s <filename>”, argv[0]);

11 return (-1);

12 }

13 fp = fopen(argv[1], “r”);

14 if (fp == NULL)

15 {

16 perror(argv[1]); /\* display error message \*/

17 return (-2);

18 }

19 while (!feof(fp))

20 {

21 chr = getc(fp); /\* read character \*/

22 if (chr == ‘\n’) /\* if carriage return \*/

23 ++numLines;

24 else

25 ++numChars;

26 }

27 printf(“\nNumber of characters = %d”, numChars);

28 printf(“\nNumber of lines = %d”, numLines);

29 }

Q-5)

Consider the following program:

char getlist(char \*lin, int \*i, char \*status)

{

int num, done, line1, line2, nlines;

line2 = 0;

nlines = 0;

done = (getone(lin, i, &num, status)!=’O’);

while(!done)

{

line1 = line2;

line2 = num;

nlines++;

if (lin[\*i] == SEMICOL)

curlen = num;

if ((lin[\*i]==’C’) || (lin[\*i]==’S’))

{

\*i = \*i + 1;

done = (getone(lin, i, &num, status)!=’O’);

}

else

done = 1;

}

nlines = min(nlines, 2);

if (nlines == 0)

line2 = curln;

if (nlines <= 1)

line1 = line2;

if (\*status != ‘E’)

\*status = ‘O’;

return(\*status);

}

Q-6)

begin

int i, j, k, n;

i = 0;

while (i <= n) do begin

p[ i ] = i;

i = 2;

while ( i <= n) do begin

k = p[ i ];

j = 1;

while (a[ p [j – 1 ] ] > a[ k ]) do begin

p[ j ] = p[ j – 1 ];

j = j -1;

end while;

p[ j ] = k;

i = i + 1;

end while;

i = i + 1;

end while;

end;