CHAPTER 14: File Handling in C

Q 1. What Is data file?

Ans. A data file is a collection of related records. A records is a collection of fields. Any type of data can be stored in data files. Data in data files is stored permanently.

Q . What is file handling? / What is the purpose of file handling?

Ans. In C programming, **file handling** refers to the operations you perform to work with files on the system, such as creating, opening, reading, writing, and closing files.

Using file handling, programs can save data to a file for later use, retrieve saved data, or manipulate existing data.

Q 2. What Is stream?

Ans. The flow of data from one point to another is called a stream. The point from where data is sent is called source and the point where data is received is called destination.

Q 3. What are different types of streams?

Ans. There are different types of streams used for transfer of data. These are

• Input stream • Output stream • Binary stream • Text stream

Q 4. What Is text stream?

Ans. A flow of characters from a source to a destination is called text stream. In text stream characters are converted in to bytes. There is no one to one relation between the characters and the bytes. The number of characters and the number of bytes may not be same when characters are converted in to bytes. For example, a new Line is stored as a carriage return.

Q 5. What Is binary stream?

Ans. A flow of bytes from a source to a destination is called binary stream. No translation is required in binary stream. There is one to one correspondence between the bytes read or written and those on external device.

Q 6. What Is Input stream?

Ans. The flow of data from a source to a program is called input stream. For example, C language program reads data from a data file. This flow of data from data file to C program will be input stream.

Q 7. What Is output stream?

Ans. The flow of data from a program to a destination is called output stream. For example, C language program write data to a data file. This flow of data from C program to data file is termed as output stream.

Q 8. What Is pointer?

Ans. A type of variable that is used to store the memory address of another variable. Data type of pointer must be same as data type of the variable whose memory address is stored in pointer. It is Declared in the similar way as ordinary variable except an asterisk (*) is placed before pointer variable or after data type.

Syntax

```
int* var;
```

& operator is used to get a memory address of a variable and assign to pointer variable through assignment statement.

```
var= &num;
```

Q 9. What Is file pointer?

Ans. File pointer is a pointer type variable whose type is File. File is a special data type defined in stdio.h header file. When a file is opened it transfers from secondary storage to main memory. File pointer variable contain information about an opened file. Data files can be accessed with the help of File pointer. File pointer is used to read and write in a data file.

Q 10. What Is meant by EOF?

Ans. EOF (end-of-file) is a is special character. It Indicate the end of text file Placed after the last character in the file. It is added automatically at the end of the file and its used in C programs to find the end of file.

Q 11. what is a string?

Ans. A collection of character enclosed in double quotations is called a string. The variable that is used to store a string is called string variable. C language does not provide any special data type to store string. As string is a combination of characters, a char array is used to store string.

Q 12. What Is the purpose of fopen() function?/ How is a file opened?

Ans. A file must be opened before use. We can read from or write into a file only if it is opened. Files are permanently stored on secondary storage. When a file is opened its data is transferred in main memory. Header file stdio.h contain all standards file handling functions. fopen() function is used to open a file. A file pointer is attached with an open file.

Syntax

File_Pointer = fopen(File_Name, Mode);

Modes of Opening Files

r

The file is opened in read mode The data can be read but cannot be written or modified The file must exist already.

w

The file is opened in write mode The data can be written to the file The existing data in the file is destroyed

a

The file is opened in append mode The new data is written at the end of existing data The data cannot be read in this mode

r+

The file is opened in read/write mode The data can be read and written to a file The file must exist already

w+

The file is opened in read/write mode The data can be written to the file The existing data in the file is destroyed The data can also be read.

a+

The file is opened in append mode The new data is written at the end of existing data The existing data can also be read.

Q 13. What Is the purpose of fputs() function

Ans. fputs() function is used to write a string in text file. This function is defined in stdio.h header file before the use of this function the file must be open in write mode or append mode.

Syntax

fputs(string, file pointer);

Q 14. What Is the purpose of fgets() function

Ans. fgets() function is used to read a sting from a text file. This function is defined in stdio.h header file. Before the use of this function the file must be opened in read mode.

Syntax

fgets(str, n, file pointer);

Q 15. What Is the purpose of putc() function

Ans. The putc() function is used to write a single character into text file at one time. Before the use of this function file should be opened is write or append mode.

Syntax

putc(character, file pointer);

Q 16. What Is the purpose of getc() function

Ans. getc() function is used to read a single character from a file. More than one characters can be read from a file by using this function repeatedly. Before the use of this function the file must be opened in read mode.

Syntax

ch = fgetc(File_Pointer);

Q 17. What Is the purpose of fprintf() function

Ans. The fprintf() function is used to write data in a file in specified format. Any type of data can be written in a file. The file must be opened in write or append mode before the use of this function. Its general syntax is as follow:

fprintt(fp, Format_string, Variables);

Q 18. What Is the purpose of fscanf() function

Ans. The fscanf() function is used to read data from a file in specific format. It works like scanf() function but scanf() function take data from keyboard. Its general syntax is as follow:

• fscanf(fp, Control-string, Variables);

Q 19. What Is the purpose of fclose function? How is a file closed?

Ans. When a file is open it is transferred from secondary storage to main memory. A connection is established between C program and file with the help of file pointer. When a file is closed its contents are transferred from main memory to secondary storage. Its connection with C program breaks. File pointer is destroyed and data of file becomes inaccessible. If it is not closed, operating system automatically closes it when program finishes.

OBJECTIVES (MCQ'S) OF CHAPTER-14
IN ALL PUNJAB BOARDS 2011-2021

1. A binary stream is sequence of:
(A) bits (B)bytes (C)kilobytes (D)giga bytes

2. Which of the following is used to write a string to a file? (4 times)
(A) puts ( ) (B) put c ( ) (C) f puts ( ) (D) f gets ( )

3. Which of the following functions is used to write a character to a file? (3 Times)
(A) fputc ( ) (B)putc ( ) (C)fputs ( ) (D) fgets ( )

4. Which of the following character is used to mark the end of the string (6 times)
(A) \0 (B) /n (C) /a (D) /s

5. Which mode opens only an existing file for both reading and writing? (4 times)
(A) "W" (B) "W++" (C) "r+" (D) "a+"

6. In _____ file opening mode, data can only be read from an existing file:
(A) W (B) W+ (C) r+ (D) "r"

7. In text file data is stored in:
(A) ASCII Code (B) Binary code (C) octal code (D) text code

8. _____ are file handling functions:
(A) f print f (B) f scan f (C) both a and b (D) none of these

9. A file is stored in
(A) RAM (B) Hard disk (C) ROM (D) Cache

10. An array script should be:
(A) int (B) float (C) double (D) An array

2017

C-language

11. A sequence of characters from an input device to computer is called: (14 times)
(a) Input stream (b) Text stream (c) Binary stream (d) Out put

12. A_____can store text only. (14times)
(a) binary file (b) text file (c) exe file (d) object file

2018

13. In the Statement FILE *FP, the * represents to: (2 times)
(a) pointer (b) variable (c) multiplication (d) parameter

14. Global variables are created in
(a) RAM (b) ROM (c) Hard Disk (d) Cache

15. A built-in function:
(a) cannot be redefined (b) can be redefined (c) exit do (d) end while

16. The fopen( ) function uses _____ parameters:
(a) 1 (b) 4 (c) 3 (d) 2

17. Which mode opens only an existing file for both reading and writing?
(a) "r+" (b) 'w' (c) "w+" (d) "a"

2019

18. On successfully closing a file in C, the fclose ( ) returns:
(a) 0 (zero) (b) NULL (c) 1 (ONE) (d) File pointer

19. On Successfully closing a file, the fclose ( ) returns:
(a) 0 (Zero) (b) NULL (c) 1 (One) (d) FILE Pointer

ANSWERS

1	2	3	4	5	6	7	8	9	10
B	C	B	A	C	D	A	C	B	A
11	12	13	14	15	16	17	18	19	
B	B	A	A	A	A	A	A	A	