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[44]

Sardar Patel University

FYBCA -2nd Sem (Reg) External Examination-April-2022

US02CBCA51 || Advanced C Programming

Date: 25/04/2022

Time: 12:00 noon to 02:00 pm **Total Marks : [70]**

Q.1 Answer the following questions. **[10]**

1 By default _____ is a return type of a C function.
(a) integer (b) char (c) float (d) double

2 In prototype declaration, specifying _____is optional.
(a) return type (b) parameter name (c) semicolon (d) data type

3 The parameters used in a function call are called _____.
(a) arguments (b) formal (c) actual (d) none

4 Which of the following share a similarity in syntax?
(a) Union (b) Structure (c) Arrays (d) Both a &b

5 Structure is a _____data type.
(a) derived (b) built in (c) user defined (d) none

6 Which of the following cannot be a structure member?
(a) Another structure (b) Function (c) Array (d) none

7 Which of the following defines a pointer variable to an integer?
(a) int &ptr; (b) int **ptr; (c) int *ptr (d) int &&ptr;

8 Which of the following is not a C memory allocation function?
(a) malloc() (b) calloc() (c) realloc() (d) alloc()

9 _____is datatype of file pointer.
(a) FILE (b) double (c) string (d) int

10 f= fopen(filename, "r");
Referring to the code above, what is the proper definition for the variable f?
(a) FILE F; (b) struct file f; (c) FILE *f; (d) int f;

Q.2 Fill in the blanks and True/False. **[08]**

1 Function header consists of _____parts.

2 The variables declared in a structure definition are called as its_____.

3 _____operator is used with a pointer to access the value of the variable whose address is contained the pointer.

4 The mode _____ is used for opening a file for updating

5 A function definition is also known as Function Implementation **(True/False)**

6 Size of a union is determined by size of the Sum of the sizes of all members. **(True/False)**

7 Using the free(ptr) free the allocated memory. **(True/False)**

8 By default, all the file opened are in dbf mode . **(True/False)**

(P.T.O.)

Q.3 Explain following in brief. (Attempt any Ten) **[20]**

1 Write advantages of user defined function.
2 Which are the components of a user-defined function?
3 What is actual and formal parameter?
4 Which elements are required for compile time initialization of a structure variable?
5 Which are the ways to access structure members?
6 Differentiate structure and union.
7 List out any 4 scale factor along with the data types.
8 List benefits of pointer.
9 Give different forms to declare a pointer variable. Which one is preferable?
10 List basic file operations performed on file.
11 List out different file modes.
12 Write down the syntax to open the text file both in read and write mode.

Q.4 Explain the following in detail. (Attempt any Four) **[32]**

1 Explain following categories with syntax and example.
   (1) No Passing parameter and No Return Value
   (2) Passing Parameter and No Return Value.
2 Explain following categories with syntax and example.
   (3) Passing parameter and Return Value
   (4) No Passing Parameter and Return Value.
3 Explain structure within structure and array within structure in detail.
4 Explain structure definition and structure initialization with example
5 What is Dynamic Memory Allocation? List all memory management function and explain any three of them with syntax and example.
6 Explain Pointer arithmetic expressions in detail.
7 Explain error handling during I/O operations.
8 Explain fopen(), getc(), putw(), fprintf() function with syntax and example.

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