



DZ-003-001207

Seat No. _____

B. Sc. (Sem. - II) (CBCS) Examination

April / May – 2015

COMPUTER APPLICATION : PAPER - CA - 201

(Advanced Programming in C)

Faculty Code : 003

Subject Code : 001207

Time : $2\frac{1}{2}$ Hours]

[Total Marks :70

- Instructions: (1) Answer of Question No. I write in routine answer sheet
(2) All the questions are compulsory.
(3) Figures on the rightmost indicate full marks.

1. Select only the correct answer from given choice:

20

1. Array subscripts in C always start at _____.
(a) 0 (b) -1 (c) 1 (d) n-1
2. In declaring an array, the array size can be a _____. I
(a) constant (b) variable (c) expression (d) All of these
3. Values used to initialize character array, are written within
(a) {} (b) “ ” (c) {} or “” (d) None of these
4. The process of allocating memory at compile time is known as _____ memory allocation.
(a) static (b) dynamic (c) process (d) automatic
5. In C language, the provision of creating arrays at run time is _____.
(a) not allowed (b) allowed (c) partially allowed (d) not supported
6. When the main function is called, it is called with the arguments _____.
(a) int argc (b) char *argv[] (c) Both a and b (d) None of these
7. Which of the following header file is required for strcpy() function?
(a) dos.h (b) conio.h (c) strings.h (d) string.h
8. String representation in C is done using _____.
(a) string (b) char (c) char arrays (d) char string

9. The remaining elements of character array str contains _____ if defined as char str[10] = "GOOD";.
- (a) 0 (b) \0 (c) garbage (d) nothing
10. strcmp("their", "there") returns _____.I
- (a) -1 (b) 1 (c) 0 (d) -9
11. Recursion is a special process of _____.
- (a) invoking (b) chaining (c) declaring (d) defining
12. Strings in C cannot be pass by _____ to functions.
- (a) value (b) address (c) character (d) array
13. Pointers are of _____ data types.
- (a) Derived (b) Fundamental (c) User-defined (d) None of these
14. _____ storage class does not allocate storage space for variables.
- (a) auto (b) register (c) static (d) extern
15. Which function reallocates memory?
- (a) realloc() (b) alloc() (c) malloc() (d) None of these
16. ftell() returns the current file position in terms of a number of type _____.
- (a) int (b) float (c) long (d) double
17. _____ notation is used to access structure member using pointer called *ptr.
- (a) (*ptr).member (b) *ptr.member (c) ptr->member (d) ptr.member
18. Structure and union differ in the terms of _____.
- (a) area (b) storage (c) location (d) address
19. Data structure of a file is defined as _____.
- (a) file (b) fp (c) file pointer (d) FILE
20. _____ defines a macro substitution.
- (a) #include (b) #macro (c) #define (d) #ifdef

2. (a) Explain the following: (any three)

6

1. Define initialization of an array.
2. What is variable? Define its scope and lifetime.
3. List derived data types in C language. Define any one.
4. What is sizeof?
5. Give example for accessing a variable through its pointer.
6. State whether the statement is true or false with reason: "Two pointer variables cannot be added."

(b) Explain the following: (any three)

9

1. Define pointer to pointer.
2. Differentiate: local vs. global variable.
3. List UDF types.
4. Define storage classes in C.
5. Differentiate: Call by value and Call by reference.
6. What are preprocessor directives?

(c) Explain the following: (any two)

10

1. Write a note on Array of structure with example.
2. What is pointer? Explain concept of pointer in detail with its advantage and example
3. Explain macro substitution in C. Explain #define with example.
4. Explain file handling in C.
5. Explain in detail Dynamic memory allocation in C.
6. Create UDF isDigit() which gets a character as argument and checks whether char is digit or not. If char is a digit then UDF isDigit should return 1, otherwise 0.

3. (a) Explain the following: (any three)

6

1. What is union?
2. Define the use of strcmp().
3. What are command line arguments?
4. Types of array.
5. What is typedef?
6. Different file modes in C.

(b) Explain the following: (any three)

9

1. Differentiate: Arrays and Structure.
2. Differentiate: Structure and Union.
3. List at least three rules for initializing structure variables at compile-time.

4. Define: dot notation, indirection notation and selection notation.
5. Explain the following functions: 1) getchar() 2) putchar().
6. Explain Header-File concept in brief.

(c) Explain the following: (any two)

10

1. Explain Recursion in C.
2. Write a note on Random access file with suitable example.
3. Explain bitwise operations in detail with example.
4. Create a structure named STUDENT containing members: rollno, name, city, contactno. Also develop function void printStudent(); which prints all members of STUDENT.
5. Write a C program to catch name of source file and name of target file from command line arguments and copy content of source file into target file.
