PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
BCA/IMCA Winter 2018–19 Examination

Semester: 02   Date: 10/12/2018
Subject Code: 05101151   Time: 10:30 am to 1:00 pm
Subject Name: Advanced C Programming   Total Marks: 60

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1   Answer the following.   **[15]**

(a)   1. Define pointer   **[5]**
2. What is the ASCII value of carriage returns?
3. A structure can be nested inside another structure. True/False
4. What will be the size of following union declaration?

   Union Test {
   int x;
   char y;
   float z; } ;
5. Define Structure.

(b) 1. If a variable is a pointer to a structure, then which of the following operator is used to access data   **[10]**
members of the structure through the pointer variable?

        (a).   (b) &   (c) *   (d) ->

2. Pointer as a function parameter is used to hold addresses of arguments passed during _____

    (a) function call.   (b) function declare.
    (c) function define.   (d) None of them

3. File manipulation function in C are available in which header file?

    (a) streams.h   (b) stdio.h
    (c) stdlib.h   (d) files.h

4. State whether the following are true or false:
    "If return type for a function is not specified, it defaults to int."

    (a)True   (b) False

5. String is always declared as an_____

    (a) array of variable   (b) array of number
    (c) array of characters.   (d) array of pointer.

6. FILE is defined in which header file ?

    (a) streams.h   (b) stdio.h
    (c) stdlib.h   (d) files.h

7. What the following function call mean?
strcpy(s1,s2);

    a) copies s1 string into s2   b) copies s2 string into s1
    c) copies both s1 and s2   d) None of these

8. What is the right way to access value of structure variable author {name, publication}?

    a) printf("%d %d",author.name, author.publication);
    b) printf("%d %d",name.author, publication.name);

c) printf("%d %d",author::name, author::publication);
d) printf("%d %d",author-name, author-publication);

9. The arguments that are passed in a function call are called _____.
    a) formal arguments.   (b) actual arguments.
    (c) both (a) and (b)   (d) non of above

10. putw function is used to _____ into a file.
    a) write a character   (b) read an integer.
    (c) read a character   (d) write an integer

Q.2 Answer the following. (Attempt any FIVE). **[15]**
    1. Define. String, call by reference, recursion.
    2. Explain Types of Function in detail.
    3. How to Read a strings from terminal with scanf function? What is the Limitations of scanf() function and what is the solution?
    4. Explain declaring & initializing of pointers.
    5. Distinguish between Array and structure.
    6. Define. : Scope, visibility & lifetime of variables.

Q.3 Attempt any THREE. **[15]**
1. List out Element of user-defined functions and Explain each elements in brief. **[5]**

2. How to detect end of file in C. Explain in detail. **[5]**

3. Explain pointer and array in brief with suitable example. **[5]**
4. Explain file operations with suitable example. **[5]**

Q.4 Answer the following. **[15]**
(a) Explain structure within structure with suitable example. **[5]**
(b) Explain fseek function in brief brief with suitable example. **[10]**

<div align="center">**OR**</div>

(b) Explain below file handling function in brief with suitable example. **[10]**
    i.   fprintf()
    ii.   fscanf()
    iii.   getw()
    iv.   putw()
    v.   putc()