Seat No:_____   Enrollment No:_____

PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
BCA Summer 2018 – 19 Examination

Semester: 2   Date: 16/04/2019
Subject Code: 05101151   Time: 02:00 pm to 04:30 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 followings.

A. Write short notes.   **(05)**
  1. Write down syntax of function.
  2. Write the definition of structure.
  3. Explain pointer in c.
  4. What is binary file in c?
  5. Explain strcat() function in c.

B. Multiple choice type questions/ Give the sentence true or false. (Each of 01 marks)   **(10)**
  1. A function may have several declarations, but only one definition.
        (a)True   (b) False
  2. A structure can be nested inside another structure.
        (a)True   (b) False
  3. What is the output of following code?
```
#include<stdio.h>
#include<conio.h>
void main(){
        int *ptr, a=4;
        ptr = &a;
        *ptr += 1;
        printf("%d, %d", *ptr, a);
        getch();
}
```
        (a). 5,5   (b) 6,5   (c) 5,6   (d) 6,6
  4. Which operator connects the structure name to its member name?
        (a) –   (b) <-   (c) .   (d) Both <- and .
  5. Which of the following are themselves a collection of different data types?
        (a) string   (b) structures   (c) char   (d) all of the mentioned
  6. 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
  7. Select a function which is used to read a single character from a file at a time?
        (a) fscanf()   (b) getch()   (c) fgetc()   (d) fgets()
  8. Which of the function is valid string function?
        (a) strcat()   (b) strlen   (c) strpbrk   (d) str
  9. The pointer accessing method is much faster than array indexing.
        (a)True   (b) False
  10. What is the output of following code?
```
#include<stdio.h>
 int main()
  {
    int i = -3;
    int k = i % 2;
  printf("%d\n",k);
  }
```
        (a) Compile time error   (b) -1   (c) 1   (d) Implementation defined

Q.2 Answer the followings. (2 or 3 Mark Questions.) (Three Q- 2 marks & Two Q-3 marks.)   **(15)**
1. Explain any two functions of file.
2. Give difference between formal argument and actual argument.
3. Define pointer with syntax.
4. Difference between Structure and union.
5. Explain advantages of files in c?
6. How to declare and initialize string variable in c?

Q.3 Answer the following. (Any three)   **(15)**
1. Explain below functions:
   a. strcat()
   b. strcmp()
   c. fseek()
   d. getw()
   e. putc()
2. Write a program to find factorial of a number using recursion.
3. Explain command line arguments using example.
4. What is the importance of user defined function. Discuss function prototype and function definition with syntax and appropriate example.

Q.4 Answer the following.
A. Explain Structure within a structure with an example.   **(05)**
B. Write a program to store 10 records for students details like stud_no , stud_name , marks of 5 subjects and calculate total marks of each students using array of structure.   **(10)**

OR

B. Write a short note on pointer increments & scale factor?   **(10)**