Seat No:_____ **Enrollment No:_____**

PARUL UNIVERSITY

FACULTY OF IT & COMPUTER SCIENCE
Parul Institute of Computer Application
Bachelor of Computer Application
2018 Mid Semester Examination

Semester: 2 **Date: 26/03/2018**
Subject Code: 05101151/05301151 **Time: 10:00 to 12:00**
Subject Name: Advanced C Programming **Total Marks: 40**

Instructions:
1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

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

(a) [3]

(1) What is the general form of function in C?

(2) Write down syntax of Structure.

(3) What is the output of this C code?

```
#include <stdio.h>
void main()
{
   int x = 0;
   int *ptr = &x;
   printf("%d\n", *ptr);
}
```

(b) MCQs/True-False. [7]

(1) 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

(2) What is the output of this code?

```
#include <stdio.h>
int main()
{
   int x;
  static int y;
   printf("%d \n %d", x, y);
}
```

(a) 0,0 (b). 0, garbage value (c). x, y (d). garbage value,0

(3) If a variable is a pointer to a structure, then which of the following operator is used to access data members of the structure through the pointer variable?

(a) • (b) & (c) * (d) ->

(4) A structure can be nested inside another structure.

(a)True (b) False

(5) What is 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

(6) 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

(7) The pointer accessing method is much faster than array indexing.

(a)True (b) False

Q.2 Answer the following. (2 or 3 mark questions) **[10]**

(a) [4]

(1) Distinguish between Actual and formal arguments.
(2) Distinguish between Array and structure arguments.

(b) [6]

(1) Define Recursion Function. Explain with an Example.
(2) Write down a program to find size of structure.

Q.3 Attempt any TWO. **[10]**

(1) Define Function. List out Element of user-defined functions and Explain each elements in brief. [5]
(2) Explain Structure within a structure with an example. [5]
(3) What is call by reference? Explain Passing pointer variables as function arguments in detail with an example**.** [5]

Q.4 Answer the following. **[10]**

(1) List out Categories of functions and explain any one in detail with an example. [5**]**

(1) Define Structure. Explain how member of a structure are accessed using a program code. [5]

Or

(3) Define Pointer. Explain declaring & initializing of pointers. **[**5**]**