

**PARUL UNIVERSITY**  
**FACULTY OF IT & COMPUTER SCIENCE**  
**BCA / IMCA Summer 2017–18 Examination**

**Semester: 2****Subject Code: 05101151 / 05301151****Subject Name: Advanced C Programming****Date: 17-05-2018****Time: 10:30AM to 01:00PM****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.**

- A.**
1. Define string. (5)
  2. What is Global scope?
  3. Write down types of function.
  4. Pointer as a function parameter is used to hold addresses of arguments passed during \_\_\_\_\_.
  5. How to declare a structure?
- B.**
1. What the following function call mean? (10)

```
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

2. What will be the size of following union declaration?

```
Union Test {
    int x;
    char y;
    float z; } ;
```

A) 7 bytes

B) 4 bytes

C) 1 bytes

D) 2 bytes

3. What is the right way to access value of structure variable book{price,page}?

- A) printf(“%d %d”,book.price, book.page);
- B) printf(“%d %d”,price.book, page.price);
- C) printf(“%d %d”,book::price, book::page);
- D) printf(“%d %d”,book-price, book-page);

4. What is the ASCII value of carriage returns?

A) 11

B) 13

C) 10

D) 8

5. What is the output of this C code?

```
include <stdio.h>
void m()
{
    printf("hi");
}
void main()
{
    m();
}
```

- A) hi
- C) hi hi

- B) Run time error
- D) Nothing

6. The value obtained in the function is given back to main by using \_\_\_\_\_ keyword?

- A) return
- C) new
- B) static
- D) volatile

7. For binary files, a \_\_\_\_ must be appended to the mode string.

- A) "01"
- C) binary
- B) "b"
- D) Nothing

8. What is the meant by 'a' in the following operation?

fp = fopen("Random.txt", "a");

- A) Attach
- C) Apprehend
- B) Append
- D) Add

9. The declaration

int (\*p) [5]; means

- A) p is one dimensional array of size 5, of pointers to integers.
- B) p is a pointer to a 5 elements integer array.
- C) The same as `int *p[`
- D) None of these.

10. Which of the following true about FILE \*fp

- A) FILE is a keyword in C for representing files and fp is a variable of FILE type.
- B) FILE is a structure and fp is a pointer to the structure of FILE type
- C) FILE is a stream
- D) FILE is a buffered stream

**Q.2 Answer the following. (Attempt any FIVE).**

**(15)**

1. Distinguish between Array and structure.
2. Define: pointer, call by reference, recursion.
3. Explain Elements of User-Defined Function in detail.
4. Distinguish between getchar() and putchar (write 3 points for each).
5. How to detect end of file in C. Explain in detail.
6. Write a short note on pointer increments & scale factor?

**Q.3 Attempt any THREE.**

**(15)**

1. List out Categories of functions and write a program to calculate area of a circle using function with arguments and return value.
2. How to Read a string from terminal with scanf function? What is the Limitations of scanf() function and what is the solution?
3. Write a note on structure within structure with suitable example.
4. Give introduction of file. Explain its basic operations with suitable example.

**Q.4 Answer the following.**

- A.** Explain declaration and initialization of pointers with example. Write a program to find address of original variable and do increment on pointer and display new address. **(5)**
- B.** What role does the fseek() plays and how many arguments does it Have? Explain each argument in brief with suitable example. **(10)**

**OR**

- B.** How to declare and initialize string? List out string handling function and explain any three in brief with suitable example. **(10)**