

(4)

- (c) Write a program to search a character in given string using function.

OR

7. (a) Explain call by value and call by reference in C using suitable example.  $5 \times 3 = 15$   
(b) Write a note on auto, static and extern variables using example.  
(c) Write a program to read the side of a triangle and print if it is equilateral, isosceles or scalene.

Unit-IV

8. (a) Write a program to swap two numbers using pointers.  $5 \times 3 = 15$   
(b) Explain the opening modes of a file in C.  
(c) Write a program to find area of circle using macro.

OR

9. (a) Explain fopen (), fseek () and fread() used in C programming.  $5 \times 3 = 15$   
(b) Write a program to read a message from the user and store it in a file.  
(c) Write a program to accept 'n' numbers from the user and sort in ascending order using array and pointers.

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Roll No. \_\_\_\_\_

**SFS-4693**

**B.C.A. (Semester-II) Examination, 2015**

(Old Course)

Programming in 'C'

First Paper

(BCA-201)

***Time Allowed : Three Hours ] [ Maximum Marks : 100***

Note : Answer five questions in all. Question No. 1 is compulsory. Attempt one question from each unit.

1. Answer the following in brief:  $4 \times 10 = 40$   
(a) Differentiate between keywords and identifier with example.  
(b) Write syntax and usage of ternary operator. Give example.  
(c) Explain the purpose of header files used in C programming.  
(d) What is an Escape Sequences? List and explain them.

(2)

- (e) Explain the working of break and continue statement.
- (f) What is the difference between Actual Parameter and Formal Parameter?
- (g) Write an algorithm to check whether a number is an armstrong or not.
- (h) What are pointer? Explain their purpose in Programming with example.
- (i) Differentiate between structure and union with example.
- (j) Determine the value of x and y  $\Rightarrow x = (a < b) ? a + 5 : b + 5 * C$ ,  $y = \text{pow}(\text{sqrt}(4), 2)$ ; (assume  $a=2$ ,  $b=3$  and  $c=4$ )

Unit-I

2. (a) List any 5 important features of C. 5 × 3 = 15
- (b) What is a variable? List the rules of defining a variable.
- (c) Write a program to find the sum of first 'n' numbers.

OR

3. (a) Explain the different fundamental data types used in C 5 × 3 = 15
- (b) List the different types of operators used in C. Explain each with example.

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(3)

- (c) Write a program to accept a number and find out whether it is even or odd.

Unit-II

4. (a) Distinguish between If Else structure and switch statement with example. 5 × 3 = 15
- (b) Write a note on nesting of loops with suitable example.
- (c) Write a program to display the factorial of a given number.

OR

5. (a) Differentiate between entry controlled and exit controlled loop with example. 5 × 3 = 15
- (b) What is an array. Explain the declaration and initialization of one dimensional array with example.
- (c) Write a program to find the product of two matrices.

Unit-III

6. (a) What is a function in C? Write general syntax of a function. Give example. 5 × 3 = 15
- (b) Explain any four string handling functions in C with example.

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