

**BACHELOR OF COMPUTER APPLICATION
FIRST SEMESTER
PROGRAMMING METHODOLOGY
BCA-101**

**SET
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

(Objective)

Time: 30 mins.

Marks: 20

Choose the correct answer from the following:

1×20=20

- An array element is accessed using
 - a list-in-first-out approach
 - the dot operator
 - the member name
 - an index number
- What is the datatype of argc in command line argument
 - int
 - int *
 - char
 - char **
- The members of a structure can be accessed by using _____ operator while using pointer object.
 - .(dot)
 - >(right arrow)
 - :(colon)
 - <-(left arrow)
- True statement about for loop
 - Entry controlled loop
 - Exit controlled loop
 - Total of 3 parts are there and separated by ;(semicolon)
 - Execution time is more than other types of loops
 - ii, iii, iv
 - ii, iv
 - i, iv
 - i, iii
- What is the value of x, m, n after execution of the following statement-
int m=5, n=8, x;
x=++m+n++;
 - x=14,m=6, n=8
 - x=13,m=6, n=9
 - x=15,m=6, n=9
 - None of these
- A function which calls itself is called _____ function.
 - Argument
 - Parameterized
 - Recursive
 - Vector
- The main() can get the changed value from the function if _____ mechanism is used with the function.
 - Pointer
 - Call by value
 - Call by reference
 - All of the above
- The function getchar() is inside the header file-
 - ctype. h
 - stdio. h
 - conio. h
 - math. h
- Which of the following declaration is not supported by C language?

(Descriptive)

Time : 2 hrs. 30 mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. What is a user defined function? How it is different from built in function. Write all the categories of user defined function with example for each category. 2+2+6= 10

2. a. What are the basic data types in C Programming? Explain with their size in bytes for each. 5+3+2= 10
b. What are the rules to declare a variable in C programming?
c. How variables are different with constants?

3. a. Take an example; you have to keep the record of 10 rooms in a hotel. So, what concept you have to use in C Programming. Justify the reason. 4+6=10
b. Write a program to keep the record of 10 rooms in a hotel and display only record of those rooms whose price is more than 1500.00.

4. a. What are the controlled statements in C? 2+5+3= 10
b. Differentiate between break and continue using example for each.
c. Write a program to check a number is a prime number or not.

5. a. How string is different than array though it is known as the array of characters? 4+6=10
b. Write a program to reverse a user inputted string and find the length of the string.

6. What is a recursion? Write a program to find the factorial of a number using recursive function. 3+7=10

7. a. What is structured programming? 3+3+4=10
b. How top down approach is different with bottom up approach?
c. Write an algorithm & draw a flowchart to reverse a number.

8. a. What is the importance of pointer in C Programming? 3+2+5=10
b. What do you mean by dereferencing a pointer?
c. Write a program to find the sum and average of n numbers in an array using pointer.

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