

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

**SET
B**

[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

- The members of a structure can be accessed by using _____ operator while using pointer object.
 - .(dot)
 - (right arrow)
 - :(colon)
 - <-(left arrow)
- 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
- The _____ is best to use if you have multiple equality conditions to check in a problem.
 - if else
 - if else if else
 - switch case
 - goto
- Which of the following is not a bitwise operator
 - &
 - |
 - !
 - <<
- Which of the following return-type cannot be used for a function in C?
 - char *
 - struct
 - void
 - none of the mentioned
- How many number of pointer (*) does C have against a pointer variable declaration?
 - 1
 - 2
 - 255
 - No limits
- A pointer is a _____ variable that stores address of an _____ variable.
 - instruction
 - variable
 - keyword used to create variables
 - None of these
- What is the sizeof(char) in a 32-bit C compiler?
 - 1 bit
 - 2 bits
 - 1 Byte
 - 2 Bytes
- A function which calls itself is called _____ function.
 - Argument
 - Parameterized
 - Recursive
 - Vector

10. Which of the following declaration is not supported by C language?
a. `String str;`
b. `char *str;`
c. `float str = 3e2;`
d. Both "`String str;`" and "`float str = 3e2;`"
11. What is the result of logical or relational expression in C?
a. True or False
b. 0 or 1
c. 0 if an expression is false and any positive number if an expression is true
d. All of the mentioned
12. Which is not a valid keyword in C
a. `label`
b. `volatile`
c. `order`
d. `void`
13. Which of the following is not a valid C variable name?
a. `int number;`
b. `float rate;`
c. `int variable_count;`
d. `int $main;`
14. The function `getchar()` is inside the header file-
a. `ctype. h`
b. `stdio. h`
c. `conio. h`
d. `math. h`
15. The function `gets()` is used to-
a. Reads a character from the keyboard
b. Writes a character to the screen
c. Reads a line from the keyboard
d. Writes a string to the screen
16. True statement about for loop
i. Entry controlled loop
ii. Exit controlled loop
iii. Total of 3 parts are there and separated by ;(semicolon)
iv. Execution time is more than other types of loops
a. ii, iii, iv
b. ii, iv
c. i,iv
d. i, iii
17. The best choice to write a program to calculate the number of days in a week is-
a. switch case
b. for loop
c. if..else if..else
d. enum
18. An array element is accessed using
a. a list-in-first-out approach
b. the dot operator
c. the member name
d. an index number
19. The `main()` can get the changed value from the function if _____ mechanism is used with the function.
a. Pointer
b. Call by value
c. Call by reference
d. All of the above
20. What is the datatype of `argc` in command line argument
a. `int`
b. `int *`
c. `char`
d. `char **`

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(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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