

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

**SET  
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

( Objective )

Marks: 20

Choose the correct answer from the following:

1×20=20

- Which is valid C expression?  
a. int my\_num = 100,000;  
b. int my\_num = 100000;  
c. int my num = 100000;  
d. None of the above
- A C program is a combination of  
a. Statement  
b. Function  
c. Variables  
d. All of the above
- scanf() is a predefined function in \_\_\_\_\_ header file  
a. stdlib.h  
b. ctype.h  
c. stdio.h  
d. stdarg.h
- What is not an example of iteration in C?  
a. for  
b. while  
c. do-while  
d. if
- What is the output of the following code snippet?  
void main() {  
    int r = 20 \* 6 / 2 + 6 \* 2;  
    printf("%d", r); }  
a. 40  
b. 60  
c. 120  
d. 72
- What will be the output of this statement "printf("%d", (a++));"?  
a. The value of (a + 1)  
b. The current value of a  
c. Error message  
d. Garbage Value
- How many times will the following loop execute?  
for(j = 1; j >= 10; j = j+1)  
a. Never  
b. Forever  
c. 0  
d. 1
- Which one of the following is a loop construct that will always be executed once?  
a. for  
b. while  
c. if  
d. None of the above

9. What does this statement mean?  $x = y + 1;$
- $x = x - y + 1$
  - $x = -x - y - 1$
  - $x = x + y - 1$
  - $x = x - y - 1$
10. How is an array initialized in C language?
- `int a[3]={1,2,3};`
  - `int a={1,2,3};`
  - `int a=new int[3];`
  - `int a(3)=[1,2,3];`
11. Study the following array definition  
`int num[10] = {3, 3, 3};` Which of the following statement is correct?
- The value of `num[8]` is 3
  - The value of `num[3]` is 3
  - `num[9]` is the last element of the array
  - None of the above
12. A global variable is declared \_\_\_\_\_.
- Outside of the function
  - Inside of the function
  - With the function
  - Anywhere in the program
13. Who defines the user-defined function?
- Compiler
  - Computer
  - Compiler Library
  - User
14. Multiple line comment in C language begins with \_\_\_\_\_
- `*/`
  - `/`
  - `/*`
  - `//`
15. Which operator can be used for accessing the value stored at address of a pointer variable?
- `#`
  - `*`
  - `@`
  - `&`
16. Which keyword is used to transfer control from a function back to the calling function?
- `goto`
  - `return`
  - `switch`
  - `goback`
17. Character constants should be enclosed between \_\_\_\_\_
- Single quotes
  - Double quotes
  - Both
  - None of the above
18. Which symbol is used as a statement terminator in C?
- `#`
  - `:`
  - `;`
  - `,`
19. Which of the following is not an arithmetic operation?
- `x * = 65;`
  - `x / = 42;`
  - `x ! = 56;`
  - `x % = 2;`

20 What will be the output?

```
for (i = 15; i > 5; i = i- 2)
{ printf ("%d", i);
  --i;
}
```

- a. 15 12 9 6
- c. 15 12 8 6

- b. 15 13 11 9 7
- d. 15 10 5

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**( Descriptive )**

Time : 2 hrs. 30 mins.

Marks : 50

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

1. What are the different types of decision making statement in C language explain each with syntax and flow diagram. 10
  
- a. Explain the functional difference of the following
  - i. Instruction and Program
  - ii. Algorithm and Flowchart
2. b. Write down the algorithm to solve whether a student passed the exam or not and also draw flow chart for the same 5+5=10
  
- a. Define variable and data types. What are the different data types available in C language
3. b. What are the different types of operators available in C language? Write a program to find out number of months and days from a user input number 4+6=10
  
- a. Define the following terms:
  - i. break
  - ii. continue
  - iii. Recursive Function
4. b. Explain if and switch statement with example. 6+4=10
  
- a. Write a program to find largest among three user input number.
5. b. Write a program to print all even and odd numbers between 10 and 50. 5+5=10
  
- a. What is an array? How array is declared? Write a program to store 10 values in an array and display them.
6. b. What is pointer? How pointer store address of any variable and point the value of that variable? 6+4=10
  
- a. What is function? How function is declared in c language? What are the different types of function available?
7. b. What are the different aspects of function calling explain with example? 5+5=10
  
- a. What is structure? How structure is declared?
8. b. Explain the memory allocation of structure with an example. 3+5+2=10
- c. What are the two ways to declare structure variable?

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