

BACHELOR OF COMPUTER APPLICATION
First Semester (Repeat)
PROGRAMMING METHODOLOGY & C PROGRAMMING
(BCA - 03)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer any four from Question no. 2 to 8
Question no. 1 is compulsory.

1. (a) Write a program to check whether a number is even or odd. (4)
(b) Write a program to check whether a character is vowel or consonant. (6)
2. Name and describe the four basic datatypes in C. Describe the rules to declare a variable in C. Draw the flowchart for addition of two numbers. (4+3+3=10)
3. Define an array. Write a program to read and write a two-dimensional array. (4+6=10)
4. What do you mean by looping? Describe two different forms of looping with examples. (2+8=10)
5. What is a structure? Write a program to explain arrays of structure. (3+7=10)
6. What is operator? Explain various types of operators present in C. (2+8=10)
7. Describe four different types of function prototypes with examples. (10)
8. What do you mean by program? Write some characteristics of a program. What are the various stages of a program development? (2+3+5=10)

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Duration: 20 minutes

Marks – 20

(PART A - Objective Type)

I. Choose the correct answer:

1×20=20

1. Size of int is _____ bytes.
(a) 16 (b) 2 (c) 32 (d) 4
2. What is the value of the arithmetic expression $14\%3+7\%2$?
(a) 1 (b) 2 (c) 3 (d) 4
3. Increment and decrement operators are binary operators.
(a) TRUE (b) FALSE
4. scanf() needs address of the data items to be read as the argument.
(a) TRUE (b) FALSE
5. while is an entry-control loop.
(a) TRUE (b) FALSE
6. The arguments that appear in function definition are called _____ arguments, whereas the arguments that appear when the function is called are _____ arguments.
(a) formal, actual (b) actual, formal
(c) formal, informal (d) None of the above
7. On using _____ the body of the loop is always executed at least once irrespective of the expression.
(a) while (b) do-while
(c) for (d) None of the above

8. _____ is a process by which a function calls itself repeatedly until some specified condition is satisfied.

- (a) structure
- (b) union
- (c) recursion
- (d) None of the above

9. The case keyword is followed by

- (a) float value
- (b) character values
- (c) integer values
- (d) Both (b) & (c)

10. The library function used to copy one string to another is _____.

- (a) strcmp
- (b) strcpy
- (c) strapy
- (d) None of the above

11. _____ is a method for packing data of different types.

- (a) array
- (b) structure
- (c) variable
- (d) None of the above

12. What will be the value of x if

$x = (10 > 15) ? 10 : 15;$

- (a) 10
- (b) 15
- (c) Both
- (d) None of the above

13. In a two-dimensional array, first subscript and second subscript in the declaration specifies

- (a) column, row
- (b) row, column
- (c) any of them
- (d) None

14. A variable name in C consists of

- (a) letters
- (b) underscores
- (c) numbers
- (d) All of the above

15. if statement is a

- (a) conditional statement
- (b) assignment statement
- (c) looping statement
- (d) arithmetic statement

16. If a is an integer variable, then $a=5/2$ will return a value

- (a) 2.5 (b) 3 (c) 2 (d) 0

17. The _____ operator gives you the remainder when two integers are divided.

- (a) % (b) + (c) @ (d) /

18. The ++ operator is

- (a) unary (b) binary
(c) ternary (d) Either (a) or (b)

19. The _____ statement requires a label in order to identify the place where the branch is to be made.

- (a) for (b) switch (c) goto (d) break

20. The _____ statement is used to exit from a loop.

- (a) for (b) switch (c) goto (d) break
