Professional Course Examination, 2021

(2nd Semester)

BACHELOR OF COMPUTER APPLICATIONS

Course : BCA/2/CC/09 (New)

(Programming Language Through C)

Full Marks : 75

Time : 3 hours

INSTRUCTIONS TO CANDIDATES

(Please read the instructions carefully before you start writing your answers)

1. Questions should be attempted as per instructions.

2. Do not copy the Questions. Indicate the Part and Section with Question No. clearly while attempting the answer.

3. For Multiple choice answer, candidate should indicate the **Question No., Sub. No., (if any) and the correct answer. For example :**

   1. Name the State capital of Mizoram.

   (a) Lunglei

   (b) Aizawl

   (c) Champhai

   Candidate should provide answer as—Q. No. *1* : *(b) Aizawl*
   [Candidate should **avoid** writing only *(b)*]

4. The figures in the margin indicate full marks for the questions.

(PART : A—OBJECTIVE)

(*Marks* : 25)

SECTION—I

(*Marks* : 15)

Choose the correct answer from the options provided : 1×10=10

1. _____ are the names you supply for variables, types, functions and labels in your program.

(a) Constants

(b) Variables

(c) Identifiers

(d) Keywords

2. Which header file can be used to define input/output function prototypes and macros?

(a) math.h

(b) memory.h

(c) stdio.h

(d) conio.h

3. Storage size of type *unsigned int* is

(a) 1 byte

(b) 2 bytes

(c) 4 bytes

(d) 8 bytes

4. Which printf( ) statement will you use to print out a (float value) and b (double value)?

(a) printf("%f%lf", a, b);

(b) printf("%f%f", a, b);

(c) printf("%Lf%Lf", a, b);

(d) printf("%f%Lf", a, b);

5. The default parameter passing mechanism is

   (a) call by value

   (b) call by reference

   (c) call by value result

   (d) call by function

6. A recursive function is faster than _____ loop.

   (a) for

   (b) while

   (c) do while

   (d) None of the above

7. How do you initialize an array in C?

   (a) intarr[3] = (1,2,3);

   (b) intarr(3) = {1,2,3};

   (c) intarr[3] = {1,2,3};

   (d) intarr(3) = (1,2,3);

8. What is the value of an array element which is not initialized?

   (a) By default zero 0

   (b) 1

   (c) Depends on storage class

   (d) None of the above

9. FILE is of

   (a) int type

   (b) char type

   (c) struct type

   (d) None of the above

10. C structure or user-defined data type is also called

    (a) derived data type

    (b) secondary data type

    (c) aggregate data type

    (d) All of the above

Choose and write the correct answer (True/False) :   1×5=5

11. The type specifier *void* indicates that no value is available.

    (a) True

    (b) False

12. The goto statement is a jump statement which is sometime also referred to as unconditional jump statement.

    (a) True

    (b) False

13. C function can return maximum of three values at a time.

    (a) True

    (b) False

14. Arrays are only designed to hold primitive data types and strings.

    (a) True

    (b) False

15. Size of C structure is the total bytes of all elements of structure.

    (a) True

    (b) False

SECTION—II

(*Marks* : 10)

Answer the following questions :   2×5=10

16. What is operator precedence?

   OR

List out the importance of C.

17. What is infinite loop?

   OR

Explain goto statements.

18. What is the need for user-defined functions in C?

   OR

What is iteration?

19. What does   do in C?

   OR

What is multidimensional array?

20. Define union.

   OR

What is fopen( )?

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

Answer the following questions :   10×4=40

1. *(a)* Differentiate between implicit and explicit type conversion.   4

(b) With example, explain logical, bitwise and assignment operators.   6

OR

2. *(a)* What is C token? List out the different types of C tokens.   4

(b) What is variable? Giving example, explain the declaration of variables and assigning value to variable.   6

3. *(a)* What is the difference between nested if else statement and if else ladder?   5

(b) Write a C program to print numbers from 1 to 10 using for loop.   5

OR

4. *(a)* What is switch statement? Explain with example.   5

(b) Explain loop control statements in C.   5

5. *(a)* Explain call by value and call by reference.   4

(b) Explain storage class of variable.   6

OR

6. *(a)* What is function? Explain standard library function.   5

(b) Briefly explain the different categories of function.   5

7. *(a)* What is an array? How will you declare and initialize 1D array?   4

(b) Write a C program to transpose a matrix.   6

OR

8. *(a)* List out some valid pointer declarations and demonstrate how to use a pointer.   5

(b) Write the concepts and descriptions of pointer.   5

9. *(a)* Write the snippets for reading, writing and closing a file. 5

   (b) List out the different modes of opening a file. 5

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OR

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10. *(a)* What is an array of structure? Support your answer with suitable example. 5

   (b) What is structure within structure? How will you access structure members? 5

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