Professional Course Examination, May 2022

Semester : **2**

Subject Code : **BCA/2/CC/09**

Subject : **Bachelor of Computer Applications**

Name of the Paper : **Programming Language through C**

Date of Examination : **12-05-2022**

No. of Answer Sheet(s) Used : _____

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. Candidate should clearly indicate the Question Nos. and the Page No. for each sheet.

3. Please write your Roll No. and Registration No. clearly and correctly in the space provided.

4. Do not write your name or the name of your college/institution anywhere or anything else, which is not part of your answer.

5. Candidate should make sure that the answer sheets scanned should be legible.

6. The Invigilator on duty should confirm that the correct script is received, compiled and attached to the correct Cover Page.

7. Multiple Choice Answer 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) Champhai
       (c) Aizawl
       (d) Mamit

Candidate should provide answer as
1 (c) Aizawl

[Candidate should avoid writing only (c)]

PART–A (OBJECTIVE) SECTION–I	
Total	

SECTION–II	
Question Nos.	Marks
Total	

PART–B (DESCRIPTIVE)	
Question Nos.	Marks
Total	
G. Total	

To be filled in by the Candidate

Date of Examination
12-05-2022

Semester : **2**

Subject Code
BCA/2/CC/09

Subject
Bachelor of Computer Applications

Roll No. _____

Regn. No. _____

No. of Additional Sheet(s) :

_____

Professional Course Examination, May 2022

(2nd Semester)

BACHELOR OF COMPUTER APPLICATIONS

(**Programming Language through C**)

Full Marks : 75

Time : 3 hours

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. The C programming language was originally developed by

(a) Ken Thompson

(b) Dennis M. Ritchie

(c) Brian Kernighan

(d) Mark Zuckerberg

2. The C programming language is

(a) high-level language

(b) assembly language

(c) machine language

(d) scripting language

3. What will be the output for the following code?

```
#include<stdio.h>
int main( )  {
int a   5, b   5;
printf("%d", a        – –b);
return 0;
}
```

(a) 10

(b) 9

(c) 8

(d) 7

4. What will be the output for the following code?

```
#include<stdio.h>
int main( )
{
int a    0;
while(a    0)
{
      printf("a    %d", a);
}
return 0;
}
```

(a) a   0

(b) 0

(c) No output

(d) Syntax error

5. The return type void returns

(a) integer

(b) float

(c) character

(d) nothing

6. Any C program

(a) must contain at least one function

(b) needs not contain any function

(c) needs input data

(d) None of the above

7. What is the right way to initialize an array?

(a) int num[6]   {2, 4, 12, 5, 45, 5};

(b) int n{ }   {2, 4, 12, 5, 45, 5};

(c) int n{6}   {2, 4, 12};

(d) int n(6)   {2, 4, 12, 5, 45, 5};

8. What is the meaning of the following code about pointer?

int ptr, p;

(a) ptr is a pointer to integer, p is not

(b) ptr and p, both are pointer to integer

(c) ptr is pointer to integer, p may or may not be

(d) ptr and p both are not pointer to integer

9. Select a function which is used to write a string to a file.

(a) puts( )

(b) putc( )

(c) fputs( )

(d) fgets( )

10. What is a structure in C language?

(a) A structure is a collection of elements that can be of same data type

(b) A structure is a collection of elements that can be of different data types

(c) Elements of a structure are called members

(d) All of the above

State True or False :   1×5=5

11. The keywords in C programming cannot be used as variable names.

12. The minimum of execution for a do-while loop is 1.

13. getchar( ) function writes a character to screen.

14. The default index number for an array starts from 1.

15. A file pointer is a bridge between C program and file/stream.

SECTION—II

(*Marks* : 10)

Answer the following questions :   2×5=10

16. Define constant variables with example.

OR

Define symbolic constants.

17. What is the output of the following conditional operator?

```
#include<stdio.h>
int main( )
{
  int a   5, b;
  b   ((a   5)?(3):(2));
  printf("The value of 'b' variable is : %d", b);
  return 0;
}
```

OR

Differentiate between while loop and do-while loop.

18. Define any two inbuilt functions under string.h header file.

OR

What is user-defined function?

19. How do you declare and initialize one-dimensional array?

OR

What is multidimensional array?

20. Write the declaration of structure with the structure name student having three members such as rollno., name and age.

(**PART : B**—DESCRIPTIVE)

(*Marks* : 50)

Answer the following questions :   10×5=50

1. *(a)* What are data types in programming? Explain any four data types in C with an example.   5

   (b) State the difference between the pre-increment and post-increment operators by giving example.   5

   OR

   (c) Explain any two formatted input and two unformatted output functions in detail.   4

   (d) What are identifiers? Write the five rules in naming identifiers.   6

2. *(a)* Write a C program to display the month name using switch case. For the user input 1, the corresponding month name, i.e., January should be displayed on the output screen.   6

   (b) What is enumeration? Explain it with its syntax.   4

(c) What is infinite loop? Write a sample example to demonstrate infinite loop. 4

(d) Write a program to print even number from 1 to 100 using while loop. 6

3. *(a)* What are storage classes? Explain the four types of storage classes. 5

(b) What are user-defined functions? Explain the syntax for declaring a function. How is it called from the main function? 5

OR

(c) Explain the concept of call-by-value with appropriate program. 5

(d) Write a C program to demonstrate type of function of no argument and no return. 5

4. *(a)* Write a C program for the subtraction of two matrices. 6

(b) How do you declare and initialize a pointer variable? 4

OR

(c) Write the advantage and disadvantage of pointers. 4

(d) Define array. Explain the two-dimensional array with example. 6

5. *(a)* Define union. Explain its operation and syntax in detail. 4

(b) Explain any three functions each for reading and writing to a file. 6

OR

(c) What is command line argument? Write a simple C program to demonstrate command line argument. 5

(d) What is array of structures? Explain its concept in detail. 5

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