

Dr. Babasaheb Ambedkar Open University
Term End Examination July – 2026

Course	: BSCIT	Date	: 16/07/2026
Subject Code	: BSCITRMA-101	Time	: 11:30am to 01:45pm
Subject Name	: Programming using C	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain the structure of a C program with diagram.
2. Explain different decision-making statements available in C.
3. Explain the different categories of user-defined functions in C with suitable examples.
4. Explain pointers in C with suitable example.
5. What is File Handling? Explain various file opening modes and describe the steps involved in reading from and writing to a file in C.

Section B

Answer the following (Attempt any four) (20)

1. Differentiate between Compiler and Interpreter.
2. Explain the scope and lifetime of local and global variables.
3. Write a short note on recursion.
4. Explain one-dimensional and two-dimensional arrays with examples.
5. What is a Structure? State its advantages over ordinary variables.
6. Explain any five commonly used string handling functions.

Section C

Part – A (Multiple Choice Questions) (10)

Q.1 Which function is the starting point of execution in a C program?

- A) start() B) execute()
C) main() D) init()

Q.2 Which header file is required for using printf() and scanf()?

- A) string.h B) math.h
C) stdio.h D) conio.c

Q.3 Which data type is used to store decimal numbers in C?

- A) int B) char
C) float D) short

Q.4 Which looping statement guarantees that the loop body executes at least once?

- A) for B) while
C) do...while D) goto

Q.5 Which operator is used to obtain the address of a variable?

- A) * B) %
C) & D) #

Q.6 Which function is commonly used to calculate the length of a string?

- A) strcpy() B) strlen()
C) strcmp() D) strcat()

Q.7 Which storage class retains the value of a local variable between function calls?

- A) auto B) register
- C) static D) extern

Q.8 Which file opening mode is used to append data at the end of an existing file?

- A) r B) w
- C) a D) rb

Q.9 Which keyword is used to define a structure in C?

- A) record B) struct
- C) union D) typedef

Q.10 Which function is used to close an opened file?

- A) close() B) fclose()
- C) endfile() D) fileclose()

Part – B (State whether the following statements are true or false)

(10)

- 1 Every C program must contain a main() function.
- 2 A variable declared with the float data type can store decimal values.
- 3 The switch statement can evaluate floating-point expressions.
- 4 Arrays in C store elements of the same data type.
- 5 A recursive function can call itself.
- 6 Pointer variables store memory addresses.
- 7 strlen() returns the number of characters in a string excluding the null character.
- 8 A structure can contain members of different data types.
- 9 Opening a file in "w" mode preserves the existing contents of the file.
- 10 fclose() is used to close an opened file.
