

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Supplementary Summer Semester Examination – 2026

Course: Common to All Branches

Semester: I

Subject Code & Name: Computer Programming in C (BTES104)

Max Marks: 60

Date: 24th June 2026

Duration: 3 Hr.

Instructions to the Students:

- 1 Each question carries 12 marks.
- 2 Question No. 1 will be compulsory and include objective-type questions.
- 3 Candidates are required to attempt any four questions from Question No. 2 to Question No. 6.
- 4 The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
- 5 Use of non-programmable scientific calculators is allowed.
- 6 Assume suitable data wherever necessary and mention it clearly.

Marks

Q. 1 Objective type questions. (Compulsory Question)

12

- 1 Which of the following is a valid C identifier? 1
a) total_marks b) 1value c) float d) total-marks
- 2 A finite sequence of steps used to solve a problem is called _____. 1
a) Algorithm b) Flowchart c) Program d) Compiler
- 3 Which declaration represents a two-dimensional array? 1
a) int a[10]; b) int a; c) int a[3][4]; d) int *a;
- 4 An array whose elements are structures is called an _____. 1
a) Structure pointer b) Array of structures c) Nested structure d) Structure variable
- 5 Which flowchart symbol is commonly used to represent a decision? 1
a) Rectangle b) Circle c) Diamond d) Parallelogram
- 6 Which loop is most suitable when the number of iterations is known in advance? 1
a) for b) while c) do-while d) goto
- 7 Which operator has the highest precedence among the following? 1
a) + b) * c) == d) ++
- 8 Which keyword is used to define a structure in C? 1
a) struct b) class c) record d) union
- 9 **Match the Pair:** 1

Column A	Column B
P. Editing	1. Running the program
Q. Compiling	2. Writing source code
R. Executing	3. Finding program errors
S. Debugging	4. Translating source code

- a) P-3, Q-2, R-1, S-4
- b) P-2, Q-1, R-4, S-3
- c) P-1, Q-4, R-3, S-2
- d) P-2, Q-4, R-1, S-3

- 10 Which operator is used to access members of a structure variable? 1
a) -> b) :: c) : d) .
- 11 The _____ statement transfers control to a labeled statement in the same function. 1
a) break b) goto c) continue d) return
- 12 An array used to store a sequence of characters is called a _____ array. 1
a) Character b) Integer c) Float d) Pointer
- Q. 2 Solve the following.** 12
- A) Define the terms editing, compiling, execution, testing, and debugging in the program development cycle. List the major components of an IDE used for C programming. 6
- B) Define an algorithm and mention its essential characteristics. Identify the symbols used for Start/Stop, Input/Output, Process, and Decision in a flowchart. 6
- Q. 3 Solve the following.** 12
- A) Define variables and constants in C. List the basic data types available in C. 6
- B) State the purpose of arithmetic operators in C. Write an algorithm to add two integers and display the result. 6
- Q. 4 Solve Any Two of the following.** 12
- A) Define decision-making statements in C. List the different looping constructs available in C. 6
- B) Describe the difference between while and do-while loops. 6
- C) Explain the purpose of the continue statement. Differentiate between local and global variables. 6
- Q. 5 Solve Any Two of the following.** 12
- A) Define an array and state its purpose. Explain how array elements are accessed in C. 6
- B) Write an algorithm to store and display five integers using an array. Draw flowchart for same. 6
- C) Explain the need for multidimensional arrays. Discuss the advantages of arrays over individual variables. 6
- Q. 6 Solve Any Two of the following.** 12
- A) Define a structure in C. List the steps required to declare a structure. Explain the need for structures in programming. 6
- B) What is an array of structures? State the syntax for accessing structure members. Define a structure variable. 6
- C) Describe how structures differ from arrays. Write a C program to store and display student information (Student Name, PRN, Mobile Number, and email id) using a structure. 6

*** End ***