

Supplementary Summer Semester Examination – 2026

Course: Common for All Branches

Semester: I

Subject Code & Name: Programming for Problem Solving (24AF1000ES106)

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.

Q. 1 Objective type questions. (Compulsory Question)

Marks

12

- 1 Which statement is used to select one option from multiple alternatives?
a) for b) switch c) while d) continue 1
- 2 Array indexing in C starts from _____.
a) 1 b) -1 c) 0 d) Depends on Compiler 1
- 3 Which of the following is an example of application software?
a) MS Word b) Compiler c) Operating System d) Device Driver 1
- 4 The statement used to skip the remaining loop body and move to the next iteration is _____.
a) break b) goto c) continue d) return 1
- 5 The CPU is often referred to as the _____ of a computer.
a) Memory Unit b) Brain c) Input Device d) Storage Device 1
- 6 The symbol used to declare a pointer variable is _____.
a) & b) % c) * d) # 1
- 7 The standard library function used to open a file is _____.
a) fclose() b) fopen() c) fprintf() d) fread() 1
- 8 The keyword used to declare a floating-point variable in C is _____.
a) int b) char c) float d) double 1
- 9 Which function is commonly used to read formatted input from the keyboard?
a) printf() b) gets() c) putchar() d) scanf() 1
- 10 The keyword used to define a structure in C is _____.
a) class b) union c) record d) struct 1
- 11 Which operator is used to find the remainder after division?
a) / b) % c) * d) + 1
- 12 Which declaration represents an integer array of size 10?
a) int arr; b) int arr(10); c) int[10] arr; d) int arr[10]; 1

Q. 2 Solve the following.	12
A) Explain the evolution of computer generations with suitable examples of each generation.	6
B) Describe the stages involved in the program development process from editing to debugging.	6
Q.3 Solve the following.	12
A) Define C tokens and list their different categories with examples. What are data types in C? Classify them into basic and derived data types.	6
B) Explain the bitwise operators and logical operators using suitable example.	6
Q. 4 Solve Any Two of the following.	12
A) Explain the difference between an if-else statement and an if-else ladder with suitable examples.	6
B) Explain the purpose of the break and continue statements in loop execution.	6
C) Write an algorithm and draw the flowchart for a switch-case statement to display the day of the week based on a number entered by the user.	6
Q.5 Solve Any Two of the following.	12
A) Define an array in C. State its advantages over using individual variables. What is a character array? Give an example of its declaration and initialization.	6
B) Write a C program to store five integers in an array and display their sum.	6
C) Explain how one-dimensional arrays are declared, initialized, and accessed in C.	6
Q. 6 Solve Any Two of the following.	12
A) Define a structure in C. State its purpose and advantages. Write the syntax for declaring and defining a structure in C.	6
B) Explain the steps involved in opening, reading, writing, and closing a file in C.	6
C) Write a C program to read and display the contents of a file created earlier.	6

*** End ***