



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – Dip.CSE-2022/Dip.ME-2022/Dip.RA-2022/Dip.EE-2022/Dip.CE-2022/Dip.RA-2023/Dip.CE-2023/Dip.CSE-2023/Dip.EE-2023/Dip.ME-2023

Course Name – Computer Programming

Course Code - ES202

(Semester II)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :
 - (i) Select the true statement about flowchart.
 - a) A diagram that shows the steps of an algorithm.
 - b) A chart that shows the flow of data.
 - c) A chart that shows the flow of control in a program.
 - d) All of the above.
 - (ii) Identify the purpose of the Control Unit (CU) in a CPU.
 - a) To perform arithmetic and logic operations
 - b) To manage input/output devices
 - c) To execute instructions
 - d) To control the flow of data within the CPU and between the CPU and other parts of the computer
 - (iii) Identify the unary operator from the following
 - a) -
 - b) ++
 - c) *
 - d) Both a and b
 - (iv) Identify the meaning of the associativity of an operator in programming.
 - a) The order in which operations are executed in an expression
 - b) The direction in which operators are evaluated when they have the same rank of precedence
 - c) The way in which variables are stored in memory
 - d) The way in which functions are called in a program
 - (v) Select the ASCII value of B.
 - a) 65
 - b) 66
 - c) 97
 - d) 98
 - (vi) Identify the valid datatype which can be used in switch statement as an argument in C.
 - a) int
 - b) char

- c) Both int and char
 (vii) Select the best suited loop for iterating over an array in C.
 a) for loop
 c) do-while loop
 (viii) Write the meaning of a function prototype in C.
 a) A declaration of the function before it is defined
 c) A type of function that doesn't return a value
 (ix) Choose the application of strcat() function in string
 a) copy string
 c) delete string
 (x) Choose the true statement about passing arguments to a function in C
 a) Arguments must be passed by reference
 c) Arguments can be passed by value or by reference
 (xi) Select the correct statement regarding structure in C language.
 a) A structure is a collection of elements that can be of the same datatype.
 c) Elements of a structure are called members.
 (xii) Identify the type of a structure.
 a) homogeneous
 c) continuous
 (xiii) Identify Which of the following is not permitted to be a member of the structure?
 a) Another structure
 c) Array
 (xiv) Choose the function that is used to check if a file exists in C
 a) exists()
 c) open()
 (xv) Choose the function that is used to write data to a file in C
 a) fprintf()
 c) getchar()
- d) None of these
 b) while loop
 d) Switch statement
 b) A definition of the function before it is declared
 d) A type of function that takes no parameters
 b) adding strings
 d) append strings
 b) Arguments can only be passed by value
 d) None of the mentioned
 b) A structure is a collection of elements that can be of different datatype.
 d) All of the above
 b) heterogenous
 d) None of these
 b) Function
 d) None of the above
 b) access()
 d) checkfile()
 b) fscan()
 d) putchar()

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Discuss the potential risks and benefits of type casting in C programming. (3)
 3. Illustrate a for loop program in C to print from 10 to 1. (3)
 4. Explain library function and user defined function in C programming. (3)
 5. Compute the role of pointers in self-referential structures, providing an example to illustrate their use. (3)
 6. Write a program to define and print a structure. (3)
- OR**
- Write a program to print a 3x3 matrix. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. How does C handle arithmetic expressions involving mixed data types (e.g., int and float)? (5)
8. Define arrays in the context of C programming, and describe their significance in storing multiple elements of the same data type. (5)
9. Write a program to count the number of words in a file in C. (5)
10. Compare between write mode and append mode in File Handling in C. Justify your answer with a program. (5)
11. Explain the way to find the length of an array in C with proper example (5)
12. Establish a C program to find the fibonacci series using recursion. (5)

OR

Establish a program in C to find the factorial of a given number using recursion. (5)
