JAMIA HAMDARD
School of Engineering Sciences and Technology
Department of Computer Science & Engineering

Subject: Programming for Problem Solving

Subject Code: BTCSE-203/BTCSEAI-203/BTECE-203

Supplementary/Improvement Examination-2024 (For Even Semester-2024)

TIME: 2 Hours 30 Minutes **MAX. MARKS: 60**

SECTION – A (20 Marks)

❖ *All questions are compulsory. Each question is of 5 marks.*

Q. No.	Questions	CO*	BL*
1.	Differentiate between compiler and interpreter in detail with examples.	CO1	L2
2.	Define algorithm. Draw a flowchart to compute a^b where a and b will be input by the user.	CO1	L3
3.	Define recursion. Write a program to compute greatest common divisor (GCD) of given two integer numbers using a recursive function.	CO4	L6
4.	Write a program to sort the integer array using insertion sort.	CO3	L6

SECTION – B (40 Marks)

❖ *Attempt any FOUR questions. Each question is of 10 marks.*

Q. No.	Questions	CO*	BL*
1.	What is a file in C programming? Write a program to read the data from the keyboard and write the contents to a data file.	CO5	L6
2.	What do you understand by the storage classes in C? Explain with examples.	CO3	L2
3.	Define String. Write a program to check if two given Strings are identical to each other.	CO3	L6
4.	Explain 1D and 2D array with examples. Write a program to merge two sorted 1D array to get a sorted 1D array.	CO3	L6
5.	Write a program using loop to generate following pattern on the monitor. A A B A A B C B A A B A A	CO2	L6
6.	Explain the following concepts in detail with proper examples: a) Pointer in C programming b) Dynamic Memory Allocation	CO4	L2

CO* - Course Outcomes from Syllabus, BL* - Bloom's Taxonomy Levels (1: Remembering, 2: Understanding, 3: Applying, 4: Analyzing, 5: Evaluating, 6: Creating)

END