

International Islamic University Chittagong (IIUC)

Department of Electronic and Telecommunication Engineering

Midterm Examination

Program: **B.sc (Engg.)**
 Course Code: **CSE-1221**
 Total Marks: **30**

Semester: **Autumn 2023**
 Course Title: **Computer Fundamentals and Programming**
 Time: **1 Hour 30 Minutes**

(i) Answer all the questions. The figures in the right-hand margin indicate full marks.								
(ii) Course Learning Outcomes (CLOs) and Bloom's Levels are mentioned in additional Columns.								
Course Learning Outcomes (CLOs) of the Questions								
CLO1	Write, compile and execute C programs based on simple constructs like arrays, loops, structures, conditional statements etc.							
CLO2	Apply the concepts of pointer and functions to solve problems.							
CLO3	Demonstrate the use of file handling operations.							
CLO4	Develop a simple C program for standard applications.							
Bloom's Levels of the Questions								
Letter Symbols	R	U	Ap	An	E	C		
Meaning	Remember	Understand	Apply	Analyze	Evaluate	Create		
Q1	a)	Name and describe four basic data types in C. Read the following code segment: <pre> x = 1, y = 2; if (n > 5) if (n == 10) x += 2; else y -= 10; printf (" %d %d ", x, y); </pre> What will be the value of x and y if n assumes a value of i) 8 and ii) 3 . Explain with rough.				CLO1	R/ U	5
Q1	b)	A C program contains the following declarations and initial statements: <pre> int i = 30, j = 15, k ; float x = 3.5, y = -1.1, z ; </pre> Determine the value of each of the following assignment expressions. Use the values originally assigned to the variables for each expression. Show the calculations. <pre> i) k = i % j ii) z = k = x iii) y += (j/2) iv) k = (j == 15) ? - - i : j++ v) z %= (i-x) </pre>				CLO1	U	5
Q2	a)	Write a C program to take an integer from the keyboard and find whether the number is multiple of 3 or not using if-else.				CLO1	U	4
Q2	b)	A student will not be allowed to sit in the exam if his attendance is less than 70%. take two integer input: i) Number of classes held ii) Number of classes he attended. Print the percentages of Classes and whether the student is allowed to sit in the exam or not.				CLO1	Ap	6

OR

Q2	c)	You are given the height and width of two rectangles H1, W1 and H2, W2. Write a C program to find out which rectangle is larger. To find out the largest one-use of rectangle. If the area of both rectangles remains same, use the height for finding out the largest one. If both the rectangles are identical, print SAME instead.	CLO1	Ap	6
Q3	a)	How does do-while differ from the while loop. Write a C program to find the sum of the first 10 natural numbers using a do-while loop.	CLO1	U	5
Q3	b)	Write a C program to print all the odd numbers from 1 to 100 in decreasing order using a for loop. Rewrite the same using while loop.	CLO1	Ap	5