

International Islamic University Chittagong
 Department of Electrical and Electronic Engineering
 B. Sc. Engineering in EEE
 Midterm Examination, Autumn 2023

Course Code: **CSE 1205**

Course Title: Computer Programming II

Time: 1 hour 30 minutes

Full Marks: 30

(i) Answer all the questions. The figures in the right-hand margin indicate full marks.

(ii) Course Outcomes (COs) and Bloom's Levels are mentioned in additional Columns.

Course Outcomes (COs) of the Questions	
CO1	Demonstrate an understanding of Basic object-oriented programming.
CO2	Apply basic object-oriented programming laws and rules to complex cases like; Logical expressions and control constructs.
CO3	Analyze basic terms like: Sorting, Searching and Geometric.

Course Outcomes (COs), Program Outcomes (POs) and Bloom's Levels (BL) of the Questions			
CO	CO Statements	PO	BL
CO1	Demonstrate an understanding of Basic object-oriented programming.	POa	C1,C2
CO2	Apply basic object-oriented programming laws and rules to complex cases like; Logical expressions and control constructs.	POb	C3
CO3	Analyze basic terms like: Sorting, Searching and Geometric.	POb	C4

Bloom's Levels (BL) of the Questions						
Letter Symbols	C1	C2	C3	C4	C5	C6
Meaning	Remember	Understand	Apply	Analyze	Evaluate	Create

- 1) a) i. Describe the core ideas of Object-Oriented Programming (OOP). CO1 **C2** 3+2
 ii. Describe the fundamental ideas of OOP.
- 1) b) Deal with a program that overloads the function area, which calculates the areas of rectangles and squares. CO2 **C3** 5
- 2) a) i. How many constructors of each type? Briefly explain. CO1 **C2** 3+2
 ii. What is a Destructor? Why is it required?
- 2) b) Write A Program To Define A Class " IIUC_ Auditorium " Which May Have Data About i) Area In Square Feet, ii) Room Number And iii) Capacity (Number Of Participant). Use Parameterized And Copy Constructor And Create Different Objects In The Main Function. CO2 **C3** 5

- 3) a) i. Does it possible to obtain the impact of default arguments using function overloading? Describe with an example. CO1 C2 3+2
 ii. What are Default Arguments? Give an example.
- 3) b) Write A Program Overloading by Different number of Arguments and Different data type of arguments CO3 C4 5

OR

- 3) a) i. Distinguish between changing number of Arguments and having different types of argument Justify CO1 C2 2+3
 ii. How does overloading ambiguity work?
- 3) b) Write output for the following program: CO3 C4 5

```
#include<iostream>
using namespace std;
class Rectangle{
public:
float area;
Rectangle(int x, int y){
area = x * y;
}
Rectangle(float x, float y){
area = x * y;
}
void display(){
cout<< area << endl;
}
};
int main(){
Rectangle object01(50,90);
Rectangle object02(11.5f, 21.6f);
object01.display();
object02.display();
return 0;
}
```