

International Islamic University Chittagong (IIUC)

Department of Computer and Communication Engineering (CCE)

Mid Term Examination

Program: B.Sc. (Engg)

Course Code: CCE-1105

Time: 1 hour 30 minutes

Semester: Spring 2024

Course Title: Computer Fundamentals and Programming

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 Level are mentioned in an additional Column.

(ii) Course Outcomes (COs) and Bloom's Level are mentioned in an additional table.

Course Outcomes (COs) of this course						
CO1	Define the components of a computer system including the basic terminology used in computer programming.					
CO2	Demonstrate C language by writing, compiling, and debugging programs with the use of different data types, variables, constants and numerous input/output functions.					
CO3	Apply control statements, functions, structures, unions, arrays, and pointers of C language to solve real-world problems.					
CO4	Adapt the concept of file handling to manipulate file data.					

Bloom's Level of the Questions						
Letter Symbols	R	U	Ap	An	E	C
Meaning	Remember	Understand	Apply	Analysis	Evaluate	Create

- | | | | | | |
|-----|-----|---|----|-----|---|
| [1] | (a) | What is the difference between primary memory and secondary memory? | U | CO1 | 2 |
| | (b) | Explain the functionalities of a CPU and illustrate its three components. | U | CO1 | 3 |
| | (c) | Illustrate the structure of a basic C program. | An | CO2 | 5 |
| [2] | (a) | What are the rules for defining a variable in C? | R | CO2 | 2 |
| | (b) | Write short notes on: | U | CO2 | 5 |
| | | a) local variable | | | |
| | | b) global variable | | | |
| | | c) static variable | | | |
| | | d) automatic variable | | | |
| | | e) external variable | | | |
| | (c) | Design an algorithm as well as draw a flow chart for the following problem: | C | CO2 | 3 |
| | | • Calculate the area of a rectangle | | | |
| [3] | (a) | Explain the differences between the #define preprocessor and const keyword used in C. | An | CO2 | 4 |
| | (b) | Create a C program that accepts the user's age as input. Using an if-else statement to evaluate whether the entered age satisfies the eligibility criteria for participating in national elections, based on the established minimum voting age of Bangladesh. | C | CO2 | 6 |
| | | OR | | | |
| [3] | (a) | Write a C program that asks the user to enter an integer. Using an if-else statement to classify the entered number as even or odd. | An | CO2 | 4 |
| | (b) | Create a C program that asks the user for a single English letter and determines if it's a vowel or consonant, using a switch statement. | C | CO2 | 6 |