

International Islamic University Chittagong

Department of Electronic and Telecommunication Engineering

B. Sc. Engineering in ETE

Midterm Examination, Autumn 2022

Course Code: CSE-1221

Course Title: Computer Fundamentals and Programming

Time: 1 hour 30 minutes

Full Marks: 30

i) Answer any three questions from the followings. 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	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 Levels of the Questions						
Letter Symbols	R	U	Ap	An	E	C
Meaning	Remember	Understand	Apply	Analyze	Evaluate	Create

- 1 a) Write a program that converts Centigrade to Fahrenheit. CO1
Write the differences between keyword and identifier. CO2 U/R 3+2

- 1 b) Draw the flowchart of nested while loop. Write a program to take hours as input and convert the hours to years, months, days and hours. CO2 U/ Ap 1+4

- 2 a) What are the basic data types in C? Write a C program to find the sum of first 10 natural numbers. CO2 R/U 1+4

- 2 b) Define loop. Write a program to check whether a given year is leap year or not. CO2 R/ Ap 1+4

Write a C program to check whether a given number is even or odd.

Determine the output of the following code segment:

```
int a=13;
```

```
do {
```

- 3 a)

```
    if(a==17){
        a=a+1;
        continue;
    }
    printf("%d \n", a);
    a++;
} while(a<20)
```

 CO2 U/ CO3 An 3+2

- 3 b) Write a program in C to display the first 10 natural even numbers.
 Write a C program to check whether a number is positive, negative or zero.
- 4 a) Define break statement. Write a program in C to display the multiplication table of a given integer.

CO2 U/ Ap 3+2

CO2 R/ Ap 1+4

4 b)

SL	Marks (%)	Letter Grade	Status
1	80% or above	A+	Excellent
2	75% to less than 80%	A	Very Good
3	70% to less than 75%	A-	Good
4	65% to less than 70%	B+	
5	60% to less than 65%	B	
6	55% to less than 60%	B-	Satisfactory
7	50% to less than 55%	C+	

CO2 U/ Ap 5

Write a program that takes number (last 2 digits of your id) of a subject as input, then prints the letter grade and status according to the table.