NATIONAL TEXTILE UNIVERSITY
Department of Computer Science

<u>Lab # 2</u>: Programming Fundamentals (COC-1071)

Basic Information			
Registration#		**Name**	
Total Marks		**Marks Obtained**	
Tools:	Dev-C++ 5.4.1		
Objectives	1. Variables 2. If statements	3. Relational and arithmetic operators	
Note	Solve the following problems using the concepts we have covered so far		

Activity 1: Variables

1. Display following message on the screen as it is:
   > **Conditional statement is written as:**
   > **"if (a==1)**
   > **cout<< "The value of a"<<"="<<a;"**
2. **Take three integers values from user and cout their average, product and sum in the following manner:**
   > **Input three different integers: 3 6 9**
   > **Sum is 18**
   > **Average is 6**
   > **Product is 162**
3. Given an equation $y=ax^3+a^2x^2+x-7$. Input the values of **a** and **x** from user and display the value of **y** on screen
4. Ask the user to enter a value in miles and convert it in kilo meters 1 kilometer=0.6213 Mile
5. Ask a person to enter his height in feet and convert it in meters 1 Foot= 0.3 Meter
6. Declare two float variables assign some value to them and then swap their values and display them
7. Declare two character variables assign some value to them and then swap their values and display them
8. Currency convertor is a very common application on the Internet. Currency convertors take the value in one currency i.e. Pak Rupees (PKR) and convert it into other currency i.e. US dollar. Ask the user to enter value in Pak Rupees and convert these rupees into dollar, ponds and euro and display them on screen. The latest conversion rate is following:
   > One dollar = 135 rupees
   > One pond = 170 rupees
   > One euro = 140 rupees
9. Print the ASCII value of **A, B, C, a, b, c, 0, 1 Hint:** cout<<"A="<<static_cast<int>('A')<<endl;
10. Ask user to enter any character and then print this character and its ASCII value on screen
11. Input a four digits number and display it in reverse order
12. Write a program that input five digits number like 12345 and display it on screen like following:
    > **1 2 3 4 5**

Activity 2: if Selection

13. Input two variables from user and display results of all 6 relational operators i.e. cout<<a>b;
14. Input two variables from user and compare using if and display appropriate message which define relationship
15. Input a number from user and check whether this number is even or odd
16. Input a vowel (a, e, I, o, u) and display any word starting from this vowel i.e. if user enter o display Operator
17. As user to enter first letter of his year like F for First Year and L for Last year, if he entered F display "You are a Junior" and If he entered L then Display "You are a Senior"
18. Ask user to enter a 4 digits number and check whether its reversed number is even or odd. For example, if user enter 8257 then display "The reversed Number is Even"