

<b>BSCS - A, B &amp; C ----- B 12 [ Revision of ICP]</b>
<b>Deadline: 4th April, 2015</b>
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<b>COMSATS Institute of Information &amp; Technology, Sahiwal, Pakistan.</b>

<b>No</b>	<b>Problem Assignment</b>
1	A Program That Read Mark & Display Pass Or Fail. fail if numbers less than 50
2	1+2+3+4+.....up to n'th term. Take a number and have sum of that n numbers.
3	4+12+20+28+.....up to n'th term. Take a number and have sum of that n numbers.
4	Write a program that read some students name, three subjects mark & display name, total, average mark & grade point average.
5	Identify whether a (five digit) number entered is palindrome or not.
6	Write a function that gets two integers & returns sum and subtract of that numbers.
7	Write a function that gets two integers & returns Maximum and Minimum.
8	Write a function that gets length & width of a rectangle & returns area.
9	Write a function that gets radius of a circle & returns area.
10	Write a function that gets three integers number & returns maximum.
11	Write a function that gets two positive integers(x,y) & returns $x^y$ (x to the power y).
12	Write a function that gets three positive integers & returns nPr (Permutation).
13	Write a program that read a line of text & display its length.
14	Write a function that gets any positive integers & determine prime or not prime.
15	Write a Program that extract prime number in the given range. E.g List and count of Prime numbers between 1000 --- 2100
16	Compare and tell which number is smallest of the 3 input numbers.
17	Write a program that takes input number and display table for that particular number.
18	Write a C++ program that takes input in integer (rupees) and gives us how many 5 rupees coins, 2 rupees coins and 1 rupee coins can be extracted from that amount. [Marks 14] For Example: You have entered value: 33 The resulting program gives results a s: Five Rupees Coins are: 6 Two Rupees Coins are: 1 One Rupees Coins are: 1
19	A program that read any number & display every number with one space in reverse order.
20	A program that read any line of text & display the frequency of vowels. E.g a=5, e=2, o=9, u=10 Etc
21	Write a program that write the following pyramid on cmd. <pre> 1 2 2 3 3 3 4 4 4 4 5 5 5 5 5 </pre>
22	A program that read any date in the entire following format i) DD/MM/YYYY ii) DD-MM-YYYY iii) DD MM YYYY iv) DD,MM,YYYY & displays day, month & year separately.
23	A program that read an integer & display odd or even.
24	<b>A program that read any year &amp; display leap year or not leap year.</b>
25	Write the program that uses the following categories of movies: A for Adventure Movies, C for Comedy movies, F for family movies H for Horror Movies S for science Fiction movies. The program input code for movie type and displays its category, e.g, if user enter H it displays Horror movies. The program should also display a menu of movie categories.
26	Write a program using Do while loop display the sum of the series $1+1/4+1/8+----1/100$
27	Write a program using while loop display the sum of the series $1-1/4+1/8- 1/12 ----1/196$
28	Write a program that displays the factorial of the number which user enters e.g if user enter 5 it display the factorial of 5
29	Write a program that check the number is rational or irrational
30	Write a program that first calculate even and odd numbers and then display sum of that even and odd numbers and also calculate prime and composite number and then display the multiplication of prime and composite number * (number 1,2----10) using for loop
31	Display the number in this series 0,1,1,2,3,5,8,13..... using loop

32	<p>Write a program that will print the following pattern:</p> <pre>1***** 12***** 123**** 1234*** 12345** 123456* 1234567</pre>																								
33	<p>Write a program to produce the output as shown below:</p> <p>Results:</p> <table><thead><tr><th>x value</th><th>y value</th><th>expressions</th><th>results</th></tr></thead><tbody><tr><td>10</td><td>5</td><td>x+=y</td><td>x=15</td></tr><tr><td>10</td><td>5</td><td>x-=y-2</td><td>x=7</td></tr><tr><td>10</td><td>5</td><td>x*=y*5</td><td>x=250</td></tr><tr><td>10</td><td>5</td><td>x/=x/y</td><td>x=5</td></tr><tr><td>10</td><td>5</td><td>x%=y</td><td>x=0</td></tr></tbody></table>	x value	y value	expressions	results	10	5	x+=y	x=15	10	5	x-=y-2	x=7	10	5	x*=y*5	x=250	10	5	x/=x/y	x=5	10	5	x%=y	x=0
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34	<p>Write a program to prompt the user to input the integral value of a and print out the result as shown below:</p> <p>Result:</p> <p>The value of a is: 10</p> <p>.....</p> <p>The value of ++a is: 11</p> <p>Now the value of a is: 11</p> <p>The value of a++ is: 11</p> <p>Now the value of a is: 12</p> <p>The value of --a is:11</p> <p>Now the value of a is:11</p> <p>The value of a-- is: 11</p> <p>Now the value of a is: 10</p>																								
35	<p>Write a program that displays the squares and cubes of the numbers from 0 to 14:</p> <p>e.g</p> <pre>0  0  0 1  1  1 2  4  8</pre>																								
36	<p>Write a program that prints the cubes of the numbers from 1 to 10, using a two-column format.</p>																								
37	<p>Calculate the percentage of of your mid term marks of each subject and then calculate the GPA of all subjects. Display only GPA</p>																								
38	<p>Write a program that user enters the name Program displays the total number of characters in the name (Hint* user enters affan Program diplays characters is = 5 )</p>																								
39	<p>Write a program to convert English units to metric (e.g., miles to kilometers, gallons to liters, meters to centimeters, centimeters to feet etc.). Serach: How to converT miles into kilometers and gallons into liters, meters to centimeters, centimeters to feet</p>																								

40	Write a program that takes a series of numbers and counts the number of positive and negative values.
41	Write a program that take six values in variables and print in ascending and desending order into two columns
42	If a person get loan from bank (e.g.1000000) and markup rate is 12%, Write the program that take the value from user and calculate its markeup (intrest) in Rs. and also show the total amount of intrest he or she had paid in 5 years and also show total amount (Markeup+Loan)

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