**LAB 05: EXERCISE**

**Question # 01:**

According to a study, the approximate level of intelligence of a person can be calculated using the following formula: i = 2 + ( y + 0.5 x ). Write a program, which will produce a table of values of **i**, **y** and **x**, where **y** varies from 1 to 6, and, for each value of **y**, **x** varies from 5.5 to 12.5 in steps of 0.5.

**Question # 02:**

Write a program, which will produce a table of values of **i**, **y** and **x**, where **y** varies from 1 to 6, and, for each value of **y**, **x** varies from 5.5 to 12.5 in steps of 0.5.

**Question # 03:**

Write a program to print the multiplication table of the number entered by the user. The table should get displayed in the following form.

29 \* 1 = 29

29 \* 2 = 58

…

**Question # 03:**

Write a program which to find the grace marks for a student using **switch**. The user should enter the class obtained by the student and the number of subjects he has failed in. If the student gets first class and the number of subjects he failed in is greater than 3, then he does not get any grace. If the number of subjects he failed in is less than or equalto 3 then the grace is of 5 marks per subject. - If the student gets second class and the number of subjects he failed in is greater than 2, then he does not get any grace. If the number of subjects he failed in is less than or equal to 2 then the grace is of 4 marks per subject. If the student gets third class and the number of subjects he failed in is greater than 1, then he does not get any grace. If the number of subjects he failed in is equal to 1 then the grace is of 5 marks per subject

**Question # 04:**

Kashif wants to find out the average amount of his 7 months electricity bills and display on the screen also if the average amount is exceeded from 50,000 rupees then 20% penalty will be applied on the average otherwise no penalty will be applied on average amount. Write a C program in order to solve Kashif problem.

**Question # 05:**

Write a program in which user enters 10 positive numbers, if any of them entered number is negative it will terminate the program and can not take further inputs from the users.

**Question # 06:**

Write a c program for the following patterns:

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1

12

123

1234

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