

Practical 4

1. Write a program to input two numbers and perform following operations.
 - I. Add
 - II. Subtract
 - III. Multiply
 - IV. Divide
 - V. Modulus
2. Write a program to calculate and print the final bill of a shop. Following screens should appear to the user.
 - I. Display the available items and the unit price.
 - II. Let the user input the required quantities from each item.
 - III. Print the bill as shown in the following figure.

```
-----
bread    - 150
eggs     - 100
butter   - 800
milk     - 500
jam      - 500
-----

Enter the quantity of bread purchased :1
Enter the quantity of eggs purchased :2
Enter the quantity of butter purchased :3
Enter the quantity of milk purchased :4
Enter the quantity of jam purchased :5
-----BILL SUMMARY-----
SL NO      ITEM NAME      QTY      PRICE
1.         bread          1       150.00
2.         eggs           2       200.00
3.         butter         3      2400.00
4.         milk           4      2000.00
5.         jam            5      2500.00
-----
TOTAL BILL AMOUNT = 7250.00
-----HAPPY SHOPPING-----

Process returned 0 (0x0)   execution time : 6.077 s
Press any key to continue.
```

3. Assume you have done 3 subjects and want to calculate the GPA. After calculating the GPA, print the grade student has obtained according to the following table.

Enter the credits obtained for ICT 107 1.0 : 2.0

Enter the credits obtained for subject ICT 105 1.5 : 2.0

Enter the credits obtained for ICT 108 2.0 : 2.0

$$\text{Total credits obtained} = \frac{\sum(\text{credit value of the subject} \times \text{number of credits obtained})}{\text{total credits of the subjects}}$$

GPA (g)	Grade
$3.5 \leq g \leq 4.5$	1 st class
$3.0 \leq g < 3.5$	2 nd upper
$2.5 \leq g < 3.0$	2 nd lower
$2.0 \leq g < 2.5$	pass
$0 \leq g < 2.0$	fail

4. Allow user to enter month, day and year. Print it as follows.

Required date is 01/12/ 2018

5. Calculate the distance between two points.

You have two points (x_1, y_1) and (x_2, y_2) . Following figure shows the calculation of distance. Prompt user to enter the coordinates of two points and print the distance.

