Level-2

(Cutoff mark: 20)

(Duration: 2 Hours)

1> Develop a program that receives the month and year from the keyboard as integers and print the calendar in the following format.   (10 marks)

MARCH 2006

MON	TUE	WED	THU	FRI	SAT	SUN
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Using the arrow keys the user must be able to change the calendar in the following manner:

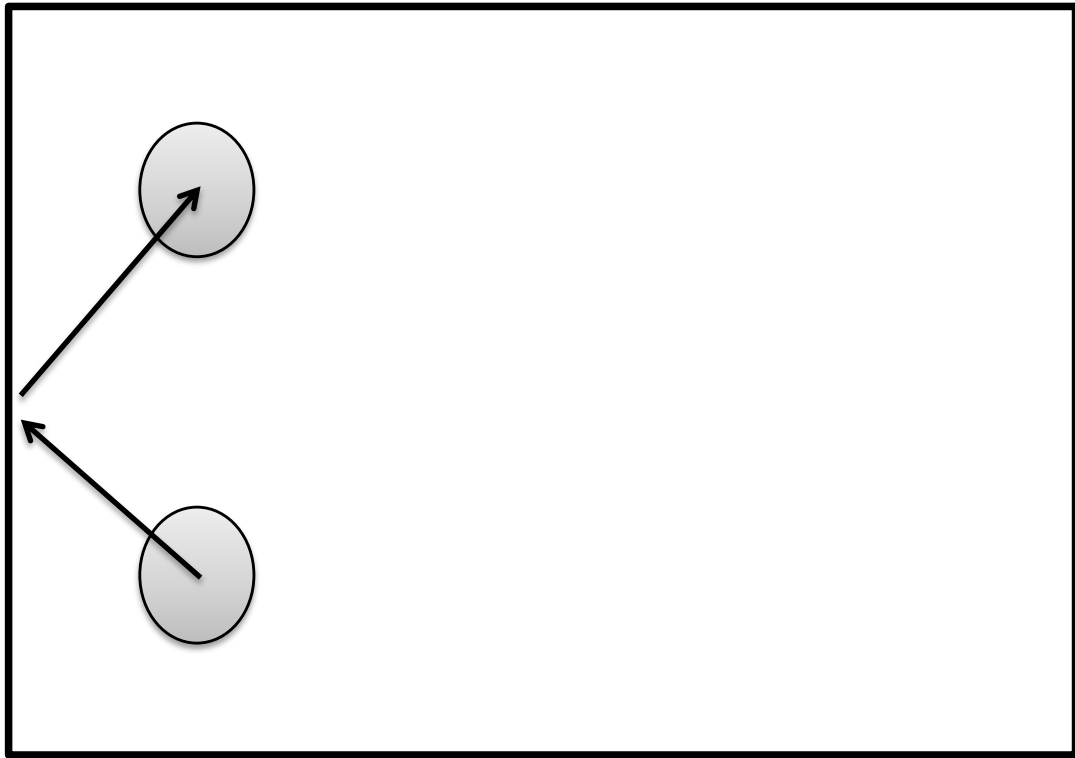Up arrow key   : Next year, same month

Down arrow key   : Previous year, same month

Right arrow key   : Same year, next month

Left arrow key   : Same year, previous month

2> Design a bouncing ball screen saver.   (10 marks)

<u>Sample Output:</u>

(Using of Graphics is optional you can use any suitable convention for representing objects)

3> Find and replace the word :-

Write a   program to find a word (given by the user) in the given file and replace the occurrence of that word wherever in the file with another word (also given by the user) and then display the contents of the file after modification.
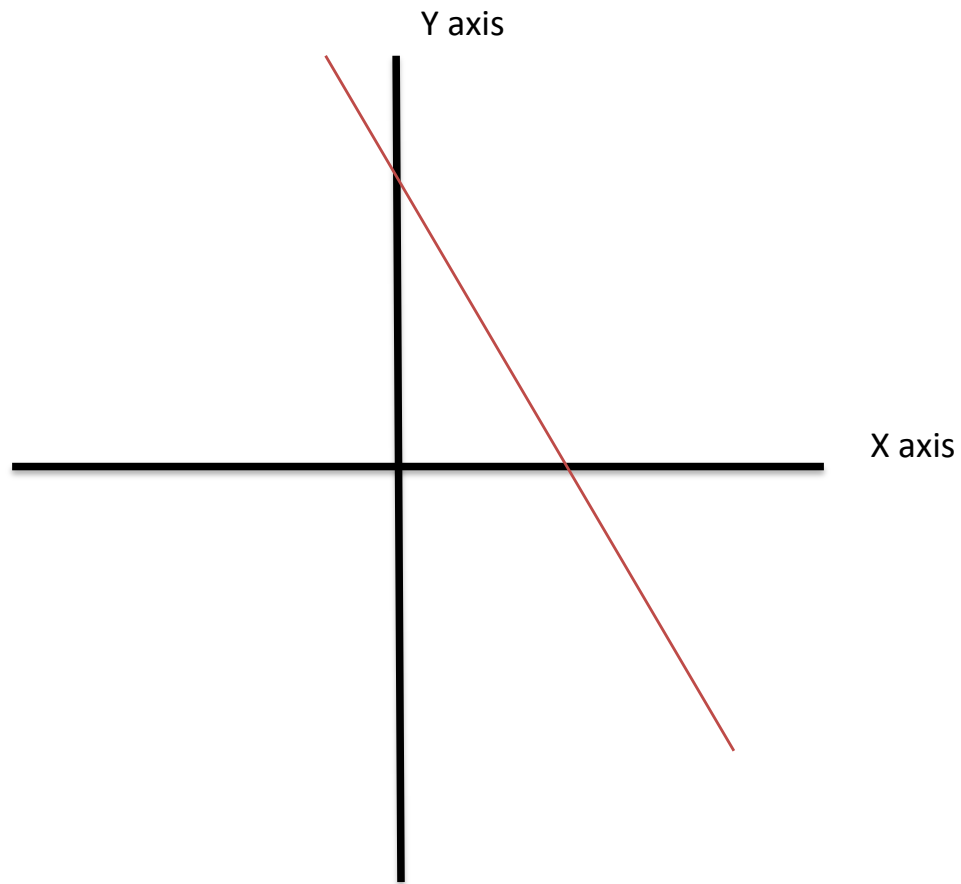
(10 marks)

4> Develop a scientific calculator which takes equation of line as input and plot the line on the graph.   (10 marks)

Sample:

Input: 4x + 3y = 12
Output:

5> Write a program which can compute algebraic integrations.
   (You can use any suitable convention)   (10 marks)

Sample:

Input:

$$\int_{2}^{5} (x\text{\^{}}2 + 3*x + 1) \ dx$$

Output: result = 73.5000