

 <b>VENKATESHWARA OPEN UNIVERSITY</b> <small>WWW.VOU.ORG.IN</small>	Max Marks - 100
Subject - Visual Basic	
Program - BCA	Passing Marks - 50
Semester - IV	Total Question - 10 (10 Marks Each)

**Important:** Student should attempt every question and submit the answer sheet with response to below questions.

Questions:

1. Program that can solve geometric problems based on Pythagoras Theorem
2. Simultaneous Linear Equations Solver.  
Simultaneous equations are equations that involves two or more unknown variables. Linear simultaneous equations take the following forms:  

$$ax+by=m$$

$$cx+dy=n$$
3. Program to generate a geometric progression and displays the results in a list box. Geometric progression is a sequence of numbers where each subsequent number is found by multiplying the previous number by a fixed number.
4. Program to calculate the maximum number among the three numbers
5. Program that can solve geometric problems based on Pythagorean Theorem
6. Program to calculate angles and any side of the triangle using sine rule
7. Program that can find factors of a number entered by the user and display them in a list box
8. Program to plot the path of a projectile, using the basic concept of missile launching. This path is determined by the launching angle and speed. The formula is  $y=(V\sin a) t- 1/2(gt^2)$  and  $x=(V\cos a)t$ , where  $V$ =launching speed and  $a$  is the launching angle,  $g$  is acceleration due to gravity( $9.8n \text{ ms}^{-2}$ ) while  $t$  is time.
9. Program to create a simple model of simple harmonic motion, use the equation  $x=A\cos(wt)$ , and assign a value of 500 to  $A$  and a value of 50 to  $w$ . Insert a shape and set it to be a circle in the properties windows. Next, insert two command buttons and change the captions to start and stop respectively. Finally, insert a timer
10. Program to make Investment Calculator

**Kindly mention the following details at the top of your Lab**

**Submission Sheet:**

Reference/enrollment number.	
Student Name	
Subject Name	
Semester/Year	

**\*Please Note:** If any of the details are missing your Lab Submission will not be considered for evaluation. University is not responsible for any consequences arising due non submission of details.