Experiment No: Date:

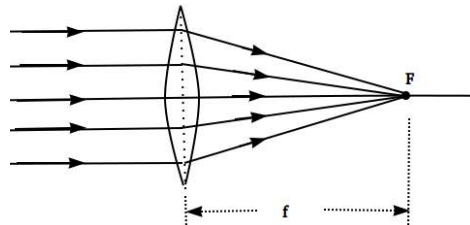# Convex Lens

Aim:

    To find the focal length of a concave mirror by drawing a uv graph and to verify the result by normal reflection method

Apparatus: Convex lens, Screen, Illuminated wire Gauze, Stand, metre scale etc.

Principle:

1. **The distance object method**:

    If the object is placed in **infinity**, the distance between the lens and the screen is the **focal length**
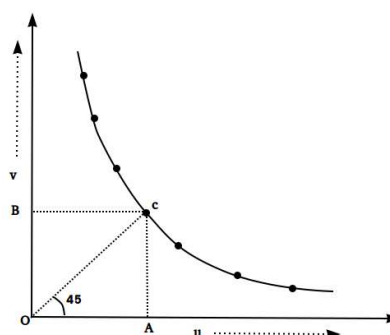

2. **from u – v graph:**

The focal length

$$f = \frac{OA + OB}{4}$$

where **OA** and **OB** are the coordinates at the point where **u = v**

Observations:

1. u – v method

Trial No	Object Distance (u) cm	Image Distance (v) cm
1		
2		
3		
4		
5		
6		

2. Distance Object Method:

$f_1 =$ cm	$f_2 =$ cm	$f_3 =$ cm	**Mean f =** cm = m

Calculations:

From u – v graph: $f = \frac{OA + OB}{4}$ **=**   cm =   cm =   m

Results:

1. Focal length of the given Convex Lens from u-v graph   =   m
2. Focal length of the given Convex Lens from distant object method   =   m