**PRACTICAL NO: 7(A)**

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Name :

Roll No:

Aim : Fitting of Straight line & Second degree curves.

Curve Fitting by Principle of least Square Method for **Fitting of Straight line**

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function [**e**]=curvefitl(**x**, **y**, **x0**)

[ry,cy]=size(**y**);

n=cy;

sx=sum(**x**);

sy=sum(**y**);

sxx=sum(**x**\***x**');

sxy=sum(**x**\***y**');

b=(sxy-sx\*sy/n)/(sxx-sx\*sx/n);

a=sy/n-b\*sx/n;

printf('value of a=%g\t and value of b=%g\n',a,b);

printf('The estimated equation is y=%g+%g\n',a,b);

**e**=a+b\***x0**;

printf('The estimated value when x0=%g then est=%g\n' ,**x0**,**e**);

endfunction