SVKM’S

DWARKADAS J.SANGHVI COLLEGE OF ENGINEERING

SUBJECT: APPLIED MATHEMATICS-1(SCILAB PROGRAMMING)

SEESION: JULY’2012-DEC’2012

NAME OF EXERCISE:CURVE FITTING

NAME: KARAN K. SHAH DIV & ROLL NO: H-93

SAP ID NO: 60002120095 BRANCH: EXTC

QUESTION: Fit a straight line y=a+bx to the following data: x:21 31 41 51 61 71 81

y:3 5 9 10 12 14 15

PROGRAM:

x=input('enter the values x=')*//enter the given value of x*

y=input('enter the values y=')*//enter the given value of y*

n=length(x)

sx=sum(x)

sy=sum(y)

sxy=sum(x.\*y)

sx2=sum(x^2)

A=[n sx;sx sx2]

B=[sy;sxy]

c=linsolve(A,-B)

disp(x,'x=')

disp(y,'y=')

disp(n,'n=')

disp(c,'for straight line y=a+bx,a and b are respectively')

INPUT:

enter the values x=[21 31 41 51 61 71 81]

enter the values y=[3 5 9 10 12 14 15]

OUTPUT:

x= y=

21. 31. 41. 51. 61. 71. 81. 3. 5. 9. 10. 12. 14. 15.

n=

7.

for straight line y=a+bx,a and b are respectively

- 0.6678571

0.2035714