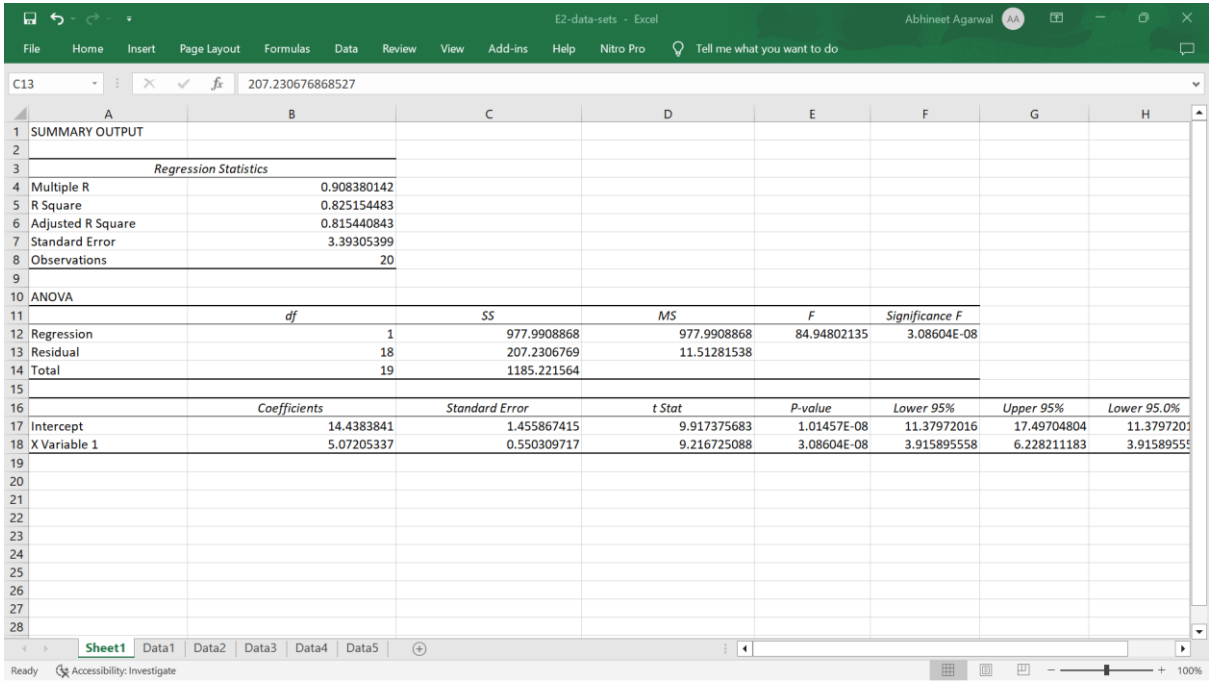
1.



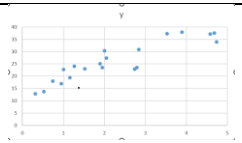
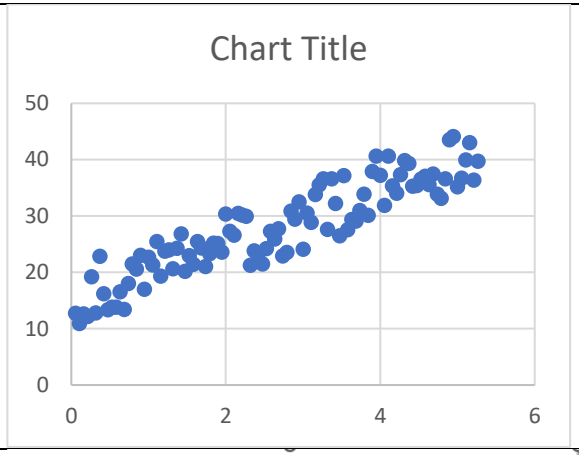
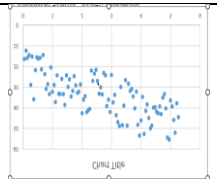
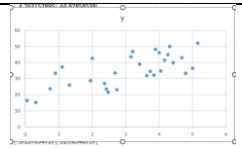
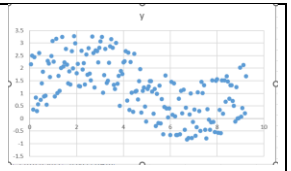
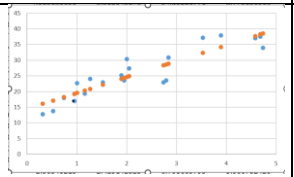
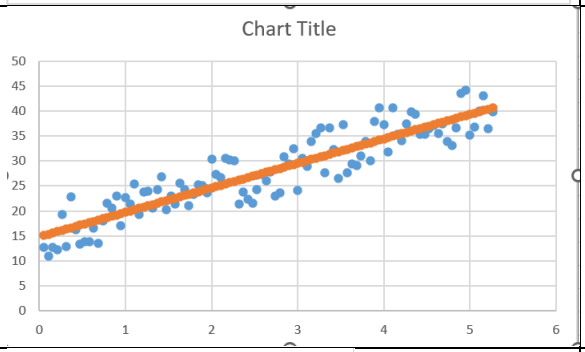
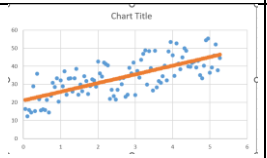
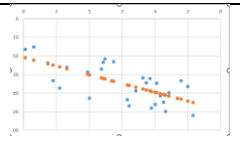
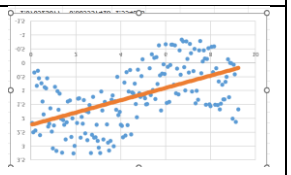
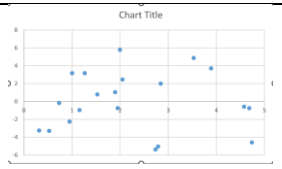
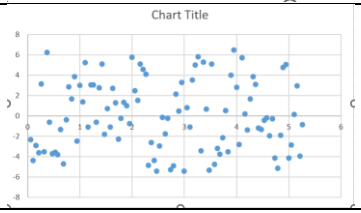
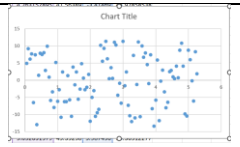
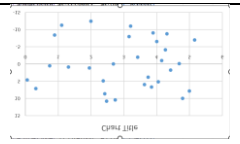
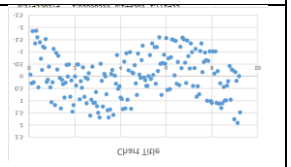
	A	B	C	D	E	F	G	H
1	SUMMARY OUTPUT							
2								
3		*Regression Statistics*						
4	Multiple R	0.908380142						
5	R Square	0.825154483						
6	Adjusted R Square	0.815440843						
7	Standard Error	3.39305399						
8	Observations	20						
9								
10	ANOVA							
11		*df*	*SS*	*MS*	*F*	*Significance F*		
12	Regression	1	977.9908868	977.9908868	84.94802135	3.08604E-08		
13	Residual	18	207.2306769	11.51281538				
14	Total	19	1185.221564					
15								
16		*Coefficients*	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*
17	Intercept	14.4383841	1.455867415	9.917375683	1.01457E-08	11.37972016	17.49704804	11.3797201
18	X Variable 1	5.07205337	0.550309717	9.216725088	3.08604E-08	3.915895558	6.228211183	3.9158955
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								

The P-value is very small, much less than 0.05. Therefore. It is statistically significant.

R2 is greater than 0.8. Therefore, this is a reasonably good regression model.

2.

Data Set	Data1	Data2	Data3	Data4	Data5

Scatter plot Y vs x					
Scatter plot Y vs x Ycap vs x					
E vs x					
Data size(n)	20	100	100	30	180
Variance(y)	1185.222	11.567	50.197	53.37	0.8089
Stdev(y)	34.427	3.401	7.085	7.3055	0.899397
Corr(x,y)	0.908	0.911	0.721	0.689	0.551

Coeff ‘a’	5.07	4.903	4.799	4.693	-0.22153
Coeff ‘b’	14.44	14.810	21.105	20.7976	2.232599
p-value ‘a’	3.08604E-08	1.5E-39	2.84E-17	2.55E-05	1.13E-15
p-value ‘b’	1.01457E-08	4.6E-39	1.08E-26	3.15E-07	6.01E-38
R^2	0.825154483	0.830	0.519331	0.47477	0.303426
1-R^2	0.175	0.17	0.480669	0.5253	0.697
F-value	84.95	497.833	105.8825	25.311	77.53645
Significance F	3.08604E-08	1.54E-39	2.84E-17	2.55E-05	1.13E-15
SSE	207.231	1133.415	4919.334	1494.377	143.9867
MSE(SSE/n)	10.362	11.334	4.919	1.494	0.7999