Appendix - 5A: Fitted Statistical Cost Function Of Chemical Enterprises.

Industry	LINEAR EQUATION			QUADRATIC EQUATION			
		B	R^2		B_1	B_2	R^2
Inorganic Chemicals	1861.426	19.982** (7.533)	0.9890	1311.262	3.826 (0.587)	0.002* (2.108)	0.916
Organic Chemicals	-959.136	36.047** (4.823)	0.833	20.383	2.666 (0.565)	0.079** (7.688)	0.935
Fertilizers and Pasticides	322.713	32.31** (10.214)	0.983	32.026	42.495** (5.233)	-0.052 (0.981)	0.967
Dyes and Paints	715.680	10.648** (5.132)	0.883	213.631	25.449** (6.165)	-0.027* (2.911)	0.906
Drugs and Pharmaceuticals	1246.239	72.254 (1.627)	0.852	465.676	18.698 (0.419)	0.126 (1.150)	0.820
Soap and Cosmetics	1423.94	2.152 (0.303)	0.433	21.039	38.011 (1.579)	-0.084 (1.328)	0.45
All Chemical Pooled	281.10	20.033** (30.087)	0.953	220.89	20.54** (7.9219)	-0.00063 (0.1639)	0.90868

Note :

Figures in brackets are "t" values.

* significant at 5% level.

** significant at 1% level.

Equations Fitted are

$$T.C = + B_1 x \text{ ---- (i)}$$

$$T.C = + B_1 x + B_2 x^2 \text{ ---- (ii)}$$

Where

T.C = Total cost (Rs).

x = Output produced (measured in Tonnes).

Here total cost is defined to consist of expenditure on material and non-material inputs plus 15% of fixed capital (expressed at current price).