MA 69204 Statistical Software Lab
Assignment No. 6

(A) Following are 80 measurements of the iron solution index of tin-plate samples, designated to measure the corrosion resistance of tin-plated steel. :

0.72	0.92	0.92	1.43	0.83	0.48	0.65	0.78
0.48	0.96	0.72	0.48	0.83	0.49	0.78	0.96
0.88	1.03	0.78	1.12	0.83	0.78	0.83	1.06
1.23	0.18	0.96	1.18	0.48	0.55	0.97	1.21
0.94	0.38	0.73	0.65	1.36	0.47	0.72	0.77
0.79	1.26	1.06	0.90	0.77	0.35	0.78	0.77
0.88	1.20	0.71	0.95	0.91	0.64	0.73	1.09
0.83	0.78	1.04	1.33	0.47	0.16	0.57	0.65
0.64	0.65	1.43	0.63	0.79	1.00	0.92	0.45
0.48	0.79	0.97	0.57	0.95	1.12	0.70	1.05

Group these measurements into class intervals of length 0.20 and obtain the frequency distribution. Find arithmetic mean, median and other quartiles, mode, standard deviation, interquartile range, trimmed sample mean and Winsorized sample mean.

(B) A scientist obtained the following daily field estimates of radioactive fallout (in micro-microcuries per cubic meter of air) in Phoenix during the months of May through August, 1964 :

9.3	6.8	9.8	6.6	4.3	6.7	6.4	10.1	8.9	3.7
5.3	6.5	7.4	8.3	4.6	7.9	6.5	5.1	7.2	8.7
7.9	6.3	2.7	5.3	8.8	7.3	9.0	7.7	8.4	7.8
5.8	6.4	6.2	5.8	6.5	6.0	7.7	5.0	4.4	4.7
5.4	2.9	4.0	4.1	4.1	5.5	3.1	3.5	5.4	4.1
4.7	6.2	3.2	2.7	4.8	2.6	3.4	6.2	5.1	4.0
5.0	3.3	2.4	4.6	2.8	1.7	0.9	7.2	9.9	4.0
2.0	2.0	1.0	3.2	5.6	3.4	5.7	7.0	4.3	3.4
3.0	4.4	2.0	5.8	1.5	5.1	5.0	8.8	4.0	6.1
5.6	5.4	8.3	8.8	10.0	4.8	3.6	2.5	5.3	2.2
4.1	5.0								

Group these data into a frequency distribution with class intervals of length 1.0. Calculate the first four noncentral and central moments, measures of skewness and kurtosis from this.

(C) Prepare frequency histogram, frequency polygon, frequency curve and cumulative frequency curve (ogive) from the classified data obtained in (A) and (B).