MTL390 (Statistical Methods)
Assignment No. 2
(100 marks)

Use the same dataset provided to you in assignment 1. The distributions given to you can be downloaded from the link `http://iitd.info/mtl390-distributions`. Using the distributions given to you, solve the following:

(1) List at least two estimators of the parameter(s) involved in the underlying distribution. (20 marks)

(2a) Classify the estimators in (1) into the unbiased, consistent or efficient estimators. (15 marks)

(2b) Find the estimates from the data. (10 marks)

(3) Find the parameters of the distribution using Method of Moments. (10 marks)

(4) Find the Uniformly Minimum Variance Unbiased Estimator (UMVUE) of the parameter's and find its estimate from the data. (20+10 marks)

(5) Find the interval estimator of any one parameter of the population distribution with confidence (15 marks)

$$\alpha = 0.01, 0.05, 0.1.$$