CCE Proficience – 2018

Basics of Data Analytics – Fundamentals

Assignment 4

1. There are 20 bricks of weight 3.4 Kg each and 30 bricks of weight 3.6 Kg each. Find the Mean, and Standard Deviation of weight for the whole bunch of 50 bricks?

2. Find the Mean, Standard Deviation of height for the following dataset.

Height (cm)	150-156	157-163	164-170	171-177	178-184	185-191
No of People	2	14	15	20	7	10

3. Find the correlation coefficient for the following set of observations.

X	7	14	24	30	45	57
Y	24	34	45	50	61	69

4. Find the correlation coefficient for the following data set and interpret the results.

Vehicle model	**Mileage (m/g)**	**Price $'000**
1	19	14.94
2	19	14.80
3	20	24.76
4	20	14.93
5	20	13.95
6	21	17.88
7	21	11.65
8	22	17.90
9	23	21.50
10	24	13.25
11	25	9.60
12	17	13.95
13	28	13.07
14	32	6.60
15	33	9.41
16	34	5.87
17	35	6.49

5. Local ice cream shop keeps track of how much ice cream sell versus the noon temperature on that day. Here are their figures for the last 12 days. Identify if there is a linear or otherwise relationship between Ice Cream Sales and Temperature at noon of the day. Predict the Ice Cream sales if the noon temperature is 26.5 degree centigrade.

Temperature (centigrade)	Ice Cream Sales ($)
14.2	215
16.4	325
11.9	185
15.2	332
18.5	406
22.1	522
19.4	412
25.1	614
23.4	544
18.1	421
22.6	445
17.2	408

6. Weight loss of a person is assumed to depend on the number of hours of exercise in gym. Observed values of these for 8 people are given in the table below. Validate if the assumption is right. Predict the weight loss for 70 hours of exercise in the gym.

Hours spent in gym	Weight loss in Kg
100	15
75	11
80	15
90	14
60	8
50	9
25	2
40	5