Mathematics and Statistics (ES1052)

Assignment _ Statistics

NOTE :: Attempt the questions as shown against your roll numbers

Q.1 The students in a math class took the Scholastic Aptitude Test. Their scores are shown below. 356, 640, 345, 349, 574, 348, 618, 581, 470, 482

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.2 Exam scores for 100 randomly selected college students has the frequency distribution was shown in the table below.

Class	90 – 98	99 – 107	108 – 116	117 – 125	126 - 134
Frequency	5	20	40	30	5

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.3 The following is prices, rounded to the nearest cent, charged per gallon of standard unleaded gasoline in the San Francisco Bay area in June 1997.

3.88, 3.90, 3.93,3.90,3.93,3.96,3.88,3.94,3.96,3.88,3.94,3.99,3.98

Represent the data as a frequency table. Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.4 The following data give noise levels measured at 36 different times directly out side of Grand Central Station in Manhattan.

82,89,94,110,74,122,112,95,100,78,65,60,90,83,87,75,114,85, 69,94,124, 115,107,88, 97,74, 72,68,83,91,90,102,77,125,108,65

Represent the data as a frequency table. Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.5 The following data is the marks of students in a certain examination.

Marks	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90	90 – 100
No. of Students	20	5	10	15	9	5

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.6 The following data represent the number of vehicles passing per hour at certain junction point. 20, 30, 15, 20, 25, 10

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

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Q.7 Consider the following data.

Class	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30
Frquency	5	13	10	8	8	6

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.8 The following data give the numbers of hours studying by 10 randomly selected college students during the past week: 5, 7, 14, 0, 7, 9, 4, 10, 0, 8

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.9 Consider the following data.

Class	4 - 5	7 - 8	10 – 11	13 - 14	16 - 17
Frquency	5	9	14	7	5

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.10 A class of sixth grade students kept accurate records on the amount of time they spent playing video games during a one week period. The times (in hours) are listed below.

26.7 14.7 8.3 12.9 15.1, 28.7 23.0 23.6 14.3,11.0

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.11 The test scores of 19 students are listed below.

91,99,86,54,72,85,97,91,90,66,82,83,78,88,77,80,92,94,98

Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Q.12 The following data give the number of new cars sold at a dealership during a 20-day period.

8,5,12,3,9,10,6,12,8,8,4,16,10,11,7,7,3,5,9,11

Represent the data as a frequency table. Represent the data as a Histogram and box plot. State outliers, if any. Find mean and mode, Karl Pearson's coefficient of Skewness, Bowley's coefficient of Skewness, Coefficient of Kurtosis. Hence State the distribution is positively/ negatively skewed or is symmetric. Also state it is platykurtic/mesokurtic/leptokurtic.

Assignment : Statistics (DIV E) Solve the question which is shown against your roll no.					
Roll Number	**Question**	**Roll Number**	**Question**	**Roll Number**	**Question**
1	2	25	12	49	7
2	9	26	12	50	9
3	1	27	6	51	6
4	8	28	12	52	5
5	1	29	8	53	7
6	11	30	2	54	8
7	2	31	3	55	2
8	9	32	7	56	12
9	7	33	3	57	3
10	1	34	12	58	8
11	7	35	5	59	4
12	10	36	11	60	4
13	5	37	9	61	10
14	10	38	3	62	3
15	8	39	2	63	2
16	8	40	12	64	11
17	11	41	2	65	3
18	6	42	7	66	5
19	6	43	8	67	5
20	2	44	3	68	1
21	10	45	12	69	1
22	2	46	6	70	3
23	8	47	12	71	8
24	12	48	11	72	10