COMPLEMENTARY STATISTICS ST 1131.1

Assignment Problems

1. The following numbers give the weights of 55 students of a class. Prepare a suitable frequency table.

42	74	40	60	82	115	41	61	75	83	63
53	110	76	84	50	67	65	78	77	56	95
68	69	104	80	79	79	54	73	59	81	100
66	49	77	90	84	76	42	64	69	70	80
72	50	79	52	103	96	51	86	78	94	71

2. The following table shows the distribution of the number of students per teacher in750 colleges.

Students	1	4	7	10	13	16	19	22	25	28
Frequency	7	46	165	195	189	89	8	19	9	3

Draw the histogram for the data and superimpose on it the frequency polygon.

3. Form a frequency table from the following

Marks	>0	>0	>20	>30	>40	>50
Number of students	40	30	25	18	12	0

4. Construct a frequency table from the following

Marks	below 10	below 2	below 30	below 40	below 50
Number of students	5	7	13	22	30

5. Draw stem and leaf plot using the following data.
   75, 89,88, 75, 75, 76, 82, 83, 83, 89, 88, 90

6. The following table gives the marks obtained by some students. Calculate the A.M., median and mode

Marks	0-10	1-20	20-30	30-40	40-50
	3	13	18	12	5

7. Draw the gives and hence estimate the median

Class	0-9	10-19	20-29	30-39	40-49	50-59
Frequency	8	32	142	216	240	206

60 - 69	70 - 79
143	13

8. Obtain Karl Pearson's measure of skewness for the following data

Values	Frequency	Values	Frequency
5-10	6	25-30	15
10-15	8	30-35	11
15-20	17	35-40	2
20-25	21		

9. For the frequency distribution given below, calculate the coefficient of skewness based on quartiles

Monthly sales (Rs. lakh)	No. of firms
< 20	30
< 30	225
< 40	465
<50	580
< 60	634
< 70	644
< 80	650
< 90	665
< 100	680

10. Find the Kurtosis of the data given below

Class interval	Frequency
0-10	1
10-20	3
20-30	4
30-40	2

11. Fluctuations in the prices of two articles A and B are given below. Find out which of the two shows greater variability.

A: 618, 619, 616, 624, 622, 625, 622, 625, 626, 625

B: 215, 213, 214, 218, 215, 22, 226, 230, 240, 213, 250

12. The first four central moments of a distribution are 0, 2.5, .7 and 18.75. Test for the skewness and kurtosis of the distribution.

13. Given and Find the probabilities of

1. at least one of the events
2. exactly one of the events
3. exactly two of the events.

14. A problem is given to three students. Their chances of solving the problem are respectively and . What is the probability that the problem is solved?

15. Three factories A,B,C supply respectively 25, 35 and 40% of the bricks needed by a construction company. From past experience it is known that 5,4 and 2% of the bricks supplied by these factors are defective what is the probability that a brick selected at random found defective was supplied by B.