SEM 2: STATISTICAL METHODS FOR ECONOMICS-1

UNIT 3 AND 4

PRACTICE SET 2

1. Define and explain the use of (i) standard deviation, and (ii) coefficient of variation.
2. If a patient's blood pressure measured daily over several weeks averaged 182 with a standarddeviation of 12.6, while that of another patient averaged 124 with a standard deviation of 9.4. Which patient's blood pressure is relatively more variable?
3. If the average monthly salary paid to the three top executives of a firm is Rs. 156000. Can one of them receive a monthly salary of Rs. 500000?
4. From the following data, determine the average owner occupancy rate (percentage) for the three cities.

City	Owner occupancy(percentage)	Number of housing units(thousands)
A	40.3	1135
B	56.4	113
C	62.1	210

5. A teacher asked the students to complete 60 pages of a record note book. Eight students have completed only 32, 35, 37, 30, 33, 36, 35 and 37 pages. Find the standard deviation of the pages yet to be completed by them.
6. What is the range of the following data

Income	100-200	200-300	300-400	400-500	500-600
No. Of workers	21	39	66	17	5

7. Find the standard deviation of first 21 natural numbers.
8. A wall clock strikes the bell once at 1 o' clock, 2 times at 2 o' clock, 3 times at 3 o' clock and so on. How many times will it strike in a particular day. Find the standard deviation of the number of strikes the bell make a day.
9. The mean and variance of seven observations are 8 and 16 respectively. If five of these are 2, 4, 10, 12 and 14, then find the remaining two observations.
10. Find the standard deviation of the data 2, 3, 5, 7, 8. Multiply each data by 4. Find the standard deviation of the new values.
11. If S is the s.d of p,q,r. Then what is the s.d of p-3, q-3, r-3.
12. Find the standard deviation of the following data 7, 4, 8, 10, 11. Add 3 to all the values then find the standard deviation for the new values.
13. How can you compare the two datasets one of which measures rainfall in a year (in mm) and the other measures production of paddy (in quintal) if mean and s.d of the two datasets are given.

14. The consumption of number of guava and orange on a particular week by a family are given below.Which fruit is consistently consumed by the family?

No. Of apples	3	5	6	4	3	5	4
No. Of oranges	1	3	7	9	2	6	2

15. The statistical measure such as mean, standard deviation are classified as part of (i) decile system (ii) moment system (iii) percentile syaytem
16. The moment about mean which indicates the symmetry or asymmetry of a distribution is
    (i) First moment (ii) second moment (iii) third moment
17. If Q_1=20, Q_2= 18, median= 12, then the distribution is
    (i)positively skewed (ii) negatively skewed (iii) symmetric

18. the distribution is leptokurtic if, (i) beta two is less than 2 (ii) beta two is greater than 3 (iii) beta two is greater than 2

19. If all the scores on examination cluster around the mean, the dispersion is said to be:(a) Small(b) Large(c) Normal (d) Symmetrical

20. If there are many extreme scores on all examination, the dispersion is, :(a) Small(b) Large(c) Normal (d) Symmetrical