<u>Ex (Ch 3 – 4)</u>

1 - The Loris healthcare System employs 200 persons on the nursing staff. Fifty are nurse's aides, 50 are practical nurses and 100 are registered nurses. Nurse's aides receive $8 an hour. Practical nurses $ 15 an hour. And registered nurses $24 an hour. What is <u>the weighted mean</u> hourly wage?

2- The annual report of Dennis Industries cited these primary earnings per common share for the past 5 year: $2.68,$1.03, $2.26, $4.30 , and $3.58 . If we assume these are population values, what is?

a- The arithmetic mean primary earning per share of common stock?
b- The variance?
c- Compute the median?.
d- What is the standard deviation?
e- If we assume these are sample compute the mean , median ,and standard deviation

3-Bidwell Electronics, inc., headquarters. The results are shown below; Compute the mean – the standard deviation and the range?

Distance (miles)	Frequency
0 up to 5	4
5 up to 10	15
10 up to 15	27
15 up to 20	18
20 up to 25	6

4 - If the mean = 105900, mode = 104500,

a- compute the median? $median = \dfrac{2 \times mean + mode}{3}$

b- Is the distribution symmetrical -positively skewed or negatively skewed Explain?

<u>Remark:</u> **If the mean is the largest average and the mode is the smallest average.**

(Mean > median > mode) The distribution is positively skewed

5- Listed below is the percent increase in sales for the MG Corporation over the last 5 years.

Determine the geometric mean percent increase in sales over the period:

9.4	13.8	11.7	11.9	14.7

6- The Thomas supply company, inc. is a distributor of gas –power generators. As with any business, the length of time customers take to pay their invoices is important, Listed below, arranged from smallest to largest. Is the time, in days, for a sample of The Thomas Supply Company Inc, invoices?

13 - 13 -13 - 20 - 26 - 27 - 31 - 34 - 34 - 34 - 35 - 35 - 36 - 37 - 38 - 41 - 41 - 41 - 45 - 47 - 47 - 47 - 50 - 51 - 53 - 54 - 56 - 62 - 67 - 82

1-Determine the first and third quartiles

2- Determine the 67th percentile

7- A survey of the number of cell phone calls made by a sample of Alltel Wireless subscribers last week revealed the following information , Develop a stem –and-leaf chart How many calls did atypical subscriber make? What was the maximum and minimum number of calls made?

52 43 30 38 30 42 12 46 39 37 34 46 32 18 41 5