بسم الله الرحمن الرحيم

واجبات مقرر ض جم ٢٠١

(HOMEWORK 1)

Q1: A sample is:

a. a number resulting from the manipulation of raw data according to specified rules.
b. a subset of a population.
c. a characteristic of a population which is measurable.
d. a complete set of individuals, objects, or measurements having some common observable characteristic.
e none of the above.

Q2 The set numbers represent 40 mean channel lengths of wadis are follow

١٥٧	١٤٩	١٢٥	١٤٤	١٣٢	١٥٠	١٦٤	١٣٨
١٤٤	١٥٢	١٤٨	١٣٦	١٤٧	١٤٠	١٥٨	١٤٦
١٦٥	١٥٤	١١٩	١٦٣	١٧٦	١٣٨	١٢٦	١٦٨

Construct frequency table , using the tally mark method and compute the relative frequency?

Q3: The heights of a sample of ten people are:

67 73 70 60 67 66 68 71 70 67.

Which are the correct real limits for the frequency table given below?

Frequency	(a)	(b)	(c)
1	60.5-63.5	60-62	59.5-62.5
0	63.5-66.5	63-65	62.5-65.5
5	66.5-69.5	66-68	65.5-68.5
3	69.5-72.5	69-71	68.5-71.5
1	72.5-75.5	72-74	71.5-74.5

1) Column a is correct
(2) Column b is correct
(3) Column c is correct
(4) All of columns a,b,c are correct
(5) None of columns a,b,c are correct

بسم الله الرحمن الرحيم

مقرر ض جم ٢٠١

(HOMEWORK٢)

Q1 The following numbers represent sodium concentrations in 40 groundwater samples

١٥٧	١٤٩	١٢٥	١٤٤	١٣٢	١٥٠	١٦٤	١٣٨
١٤٤	١٥٢	١٤٨	١٣٦	١٤٧	١٤٠	١٥٨	١٤٦
١٦٥	١٥٤	١١٩	١٦٣	١٧٦	١٣٨	١٢٦	١٦٨
166	154	143	122	132	125	134	145

Construct the following :
- Table and Frequency Histogram diagram of data

Q2: A large mass of data can best be summarized pictorially by means of:

a. the range
b. a histogram
c. the frequency table
d. XBAR and S(Y**2)

Q3: In a frequency distribution of 250 scores, the mean is reported as 78 and the median as 65. One would expect this distribution to be

a. positively skewed.
b. negatively skewed.
c. symmetrical but not rectangular or normal.
d. normal.
e. rectangular.

بسم الله الرحمن الرحيم
مقرر ض جم ٢٠١

(HOMEWORK ٣)

Q1 – The 50 minerals were selected randomly, these minerals are shown below:

النوع	بلاتين	منجنيز	نحاس	زنك	فضه	ذهب
عدد البيانات	٥	٩	٤	٥	١٦	١١

Represent the following data as Bar graph.

Q2- Find the Arithmetic mean, mode and median of the following data

112	231	211	233	123	213	112	115	154	125	163	154
								113	211	234	112

Q3: For a symmetric distribution, the mean and median are

1. the same
2. always different
3. possibly the same, possibly different
4. insufficient information.

بسم الله الرحمن الرحيم
مقرر ض جم ٢٠١
(HOMEWORK 4)

Q1- The set of the numbers

2, 10, 4, 7, 3

Find the following:
- Geometric mean
- Arithmetic mean
- Harmonic mean

Q2: If the mean, median and mode of a distribution are 5, 6, 7 respectively, then the distribution is:

1. skewed negatively
2. not skewed
3. skewed positively
4. symmetrical
5. bimodal

Q3: Which of the following measures of central tendency tends to be most influenced by an extreme score?

a. median
b. mode
c. mean

Q4: The mean of the population of ten scores, 78, 91, 91, 94, 74, 23, 63, 22, 78, 89 is 70.3, and the modes are 78 and 91. The skewness of the population is:

1. negative
2. zero
3. positive
4. not determined
5. positive or negative depending on the score.

بسم الله الرحمن الرحيم
مقرر ض جم ٢٠١

(HOMEWORK ٥)

Q1- Given the numbers 2, 6 , 1, 5, 3, 7, 2 calculate a moving average of order 3 .

5, 1, 7, 4, 7, 8, 4

Q2- A student's final marks in Chemist., Geology, History, and English are 62, 76, 76 and 80 respectively. If the respective credits received for these courses are 3, 5, 3 and 1 : determine an approximate average mark.

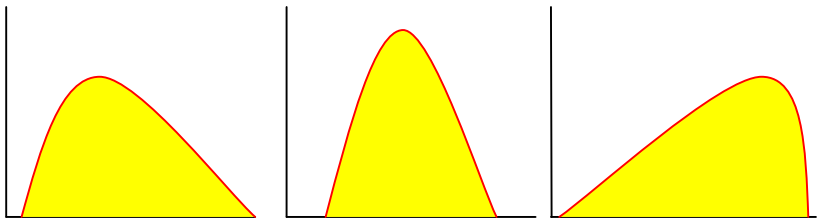
Q-3- The values of X and Y are tabulated below find the straight line equation.

X	3	4	6	8	10	11
Y	2	5	8	12	16	18

بسم الله الرحمن الرحيم
مقرر ض جم ٢٠١

(HOMEWORK 6)

Q1- Clarify is the relationships among Mode-Median – Arithmetic mean in the figures below.



Q2- The set of numbers

٥ , ١٨, ١٠, ١٥, ٣٠٧ , ٦ , ١٢

Find out the standard deviation and variance ?

Q 3: The sample variance of the following sample of five numbers 1,2,3,4,5 is:

(1) 2.5
(2) 9
(3) 10
(4) 13.3
(5) 55

بسم الله الرحمن الرحيم
مقرر ض جم ٢٠١

(HOMEWORK 7)

Q 1: Which of the following is not a measure of central tendency?

a. mean
b. median
c. mode
d. standard deviation
e. none of these

Q 2: In popular usage, the term average may refer to:

a. The mean
b. The median
c. The mode
d. None of these
e. All of these

Q 3 : The mean is a measure of:

a. variability.
b. position.
c. skewness.
d. central tendency.
e. symmetry.

Q 4: The quantity SUM(X - XBAR) is not used as a measure of dispersion because it is:

(a) always equal to zero
(b) always a positive value
(c) too difficult to work with
(d) always a negative value.

بسم الله الرحمن الرحيم
مقرر ض جم ٢٠١

(HOMEWORK 8)

Q 1: The mean of the following data is:

X(I)	Freq(I)
0	4
1	3
2	1
3	0
4	1

a. 9/5
b. 9
c. 9/4
d. 1
e. none of the above

Q 2: In a set of 10 scores the value 2 occurs three times, the value 4 occurs twice, 6 occurs twice, and 7 occurs three times. What is the mean of the scores?

a. (2 + 2 + 6 + 7)/4
b. (2 + 4 + 6 + 7)/10
c. (3*2 + 2*4 + 2*6 + 3*7)/4
d. (3*2 + 2*4 + 2*6 + 3*7)/10

بسم الله الرحمن الرحيم
مقرر ض جم ٢٠١

(HOMEWORK 9)

Q 1: The following data represent scores of 50 students in a calculus test.

72	72	93	70	59	78	74	65	73	80
57	67	72	57	83	76	74	56	68	67
74	76	79	72	61	72	73	76	67	49
71	53	67	65	100	83	69	61	72	68
65	51	75	68	75	66	77	61	64	74

a. Prepare the frequency distribution table and the frequency histogram for this data set.

b. Compute the sample mean XBAR, sample median X(M), sample range R, interquantile range and sample variance S**2.

Q 2: Consider the following data: **-4, 3, 8, -2, 7, 7, 6, 11, 4, 10**

The mean XBAR of the data above is
(a) 4.00 (d) 5.60
(b) 4.60 (e) none of these.
(c) 5.00

Q 3: What is the relationship between the variance of a set of scores and the standard deviation of those scores?
a. variance = (standard deviation)**2
b. standard deviation = (variance)**2
c. variance = mean/standard deviation
d. standard deviation = mean/variance

بسم الله الرحمن الرحيم
مقرر ض جم ٢٠١

(HOMEWORK 10)

Q 1 : True or False? If False, explain why.

Generally, a small standard deviation implies that the measurements are clustered close to the mean.

Q2 Which of the following relations is always correct:

1. SUM(X) = 0
2. SUM(X - XBAR) = 0
3. SUM(]X - XBAR]) = 0
4. SUM((X - XBAR)**2) = 0
5. SUM(X - a) = 0

Q 3: If a constant were to be added to a set of scores, the standard deviation would:

a. remain the same.
b. increase by the square root of that constant.
c. increase by the square of that constant.
d. increase by the magnitude of that constant.
e. none of the above.

Q 4: If the variance of a distribution is 9, the standard deviation is:

a. 3
b. 6
c. 9
d. 81
e. impossible to determine without knowing n.