

Mid – term Exam (341)

Student Name :ID Number :

(Choose the correct answer for the following (30) questions)

- 1) Which of the following measures is influenced by extreme values ?
 A. Mean B. Median C. Mode D. None of these.
- 2) The following frequency distribution analyzes the scores on a math test.
 Find the class boundaries of scores interval 30-39.

Scores	0-9	10-19	20-29	30-39	40-49
Number of Students	2	4	6	15	5

- A. 39.5, 58.5 B. 40.5, 59.5
 C. 40.5, 58.5 D. 29.5, 39.5

- 3) Construct the cumulative frequency distribution that corresponds to the given frequency

Speed	0-29	30-59	60-89	90-119
Number of Cars	60	16	20	4

- A. None of these.

B.	Speed	Less than 30	Less than 60	Less than 90	Less than 120
	Cumulative Frequency	0.60	0.76	0.96	1.00
C.	Speed	Less than 30	Less than 60	Less than 90	Less than 120
	Cumulative Frequency	100	96	76	60
D.	Speed	Less than 30	Less than 60	Less than 90	Less than 120
	Cumulative Frequency	60	76	96	100

4) A medical research team studied the ages of patients who had strokes caused by stress. The ages of 14 patients who suffered stress strokes were as follows:

25 45 55 33 47 57 35 49 59 40 52 60 42 63

Construct a frequency distribution for these ages. Use 4 classes, a class width of 10 hours, and a lower limit of 25 for class 1.

	Ages	25-34	35-44	45-54	55-64
A.	No. of Patients	2	3	4	5
	B. Ages	25-34	35-44	45-54	55-64
	No. of Patients	4	5	3	2
	C. Ages	25-34	35-44	45-54	55-64
	No. of Patients	5	2	3	4
	D. Ages	25-34	35-44	45-54	55-64
	No. of Patients	3	5	4	2

5) The sum of relative frequencies in a relative frequency distribution is:

- A. Always 100 B. Always 1
 C. Sum of given frequencies D. None of these.

6) The following data show the number of laps run by each participant in a marathon 46 65 55 51 66 48 57 30 43 49 32 56. Use the data to create a stem-and-leaf display.

A.

Stem	Leaves
3	0 2
4	6 3 8 9
5	5 1 7
6	5 6

B.

Stem	Leaves
3	0 2
4	6 3 8 3 9
5	5 1 7 5

C.

Stem	Leaves
3	0 2
4	6 3 8 3 9
5	5 1 7
6	5
7	0

D.

Stem	Leaves
2	0 2
3	6 3 8 3 9
4	5 1 7
6	5

7) Find the mean of the following observations: 40 50 70 40.
A. 49.2 B. 50.0 C. 51.5 D. 52.0

8) Find the median of the following observations: 26 29 33 59 25 67 68 78.
A. 33 B. 46 C. 51 D. 67

9) Find the mode(s) for the given sample data: 20 43 46 20 43 49 43 20 49 20.
A. 49 B. 46 C. 41.9 D. 20

10) A meteorologist records the number of clear days in a given year in each of 21 different KSA cities. The results are shown below:

72 143 42 84 100 98 101 120 99 121

86 60 59 71 125 130 104 74 83 55 200

Find the range.

A. 98 days B. 112 days C. 158 days D. 110.5 days

11) Find the mean of the following frequency distribution:

class	0-5	6-11	12-17	18-23
frequency	4	5	6	10

A. 13.78 B. 13.33 C. 14.53 D. 13.00

12) Find the median of the following frequency distribution :

class	0-5	5-10	10-15	15-20
frequency	3	5	3	10

A. 15.17 B. 15.93 C. 14.54 D. 19.7

13) Find the mode(s) of the following frequency distribution:

class	0-5	5-10	10-15	15-20
frequency	3	5	3	10

A. 15.5 B. 15.93 C. 14.54 D. 17.1

14) Find the variance for the following population data: 12 4 13 5 7.

- A. 14.5 B. 16.7 C. 13.4 D. 51.2

15) Find the standard deviation for the given sample data: 12 4 13 5 7.

- A. 5.5 B. 4.1 C. 4.5 D. 5.0

16) Find the variance for the following frequency distribution of all the 20 patients in a clinic:

Ages	0-5	6-11	12-17	18-23
No. of Patients	6	4	3	7

- A. 55.7 B. 55.3 C. 53.9 D. 38.2

17) Find the standard deviation for the following frequency distribution of a 20 patients from a hospital:

Ages	0-5	6-11	12-17	18-23
No. of Patients	6	4	3	7

- A. 7.7 B. 6.5 C. 5.9 D. 5.2

18) Which of the following is NOT a measure of dispersion?

- A. Median B. Variance C. Standard deviation D. Range

19) The values of the variance and standard deviation are:

- A. Never negative B. Always positive C. Never zero D. None of these

20) Which of the following measures can be calculated for qualitative data:

- A. Mean B. Median C. Mode

21) The sum of the percent frequencies for all classes will always equal:

- A. One B. The number of classes
C. The number of items in the study D. 100

22) The following data show the number of hours worked by 200 statistics students.

No. of Hours	0-7	8-15	16-23	24-31
Frequency	40	50	70	40

The class width for this distribution is:

- A. 9 B. 8 C. 7 D. Varies from class to class

23) which of the following measures can have more than one value :

- A. Mean B. Median C. Mode D. Range

24) The following data show the number of hours worked by 200 statistics students.

No. of Hours	0-9	10-19	20-29	30-39
Frequency	65	45	40	50

The number of students working 19 hours or less is:

- A. 65 B. 150 C. 110 D. None of these.

25) The following data show the number of hours worked by 200 statistics students.

No. of Hours	0-9	10-19	20-29	30-39
Frequency	65	45	40	50

The cumulative relative frequency for the class of 10 - 19 is:

- A. 110 B. 0.25 C. None of these. d. 0.55

26) The difference between the largest and the smallest data values is the :

- A. variance B. range C. mean D. median

27) Which of the following is not a measure of central tendency?

- A. mean B. median C. variance D. mode

28) The value of the middle term in a ranked data set is called :

- A. None of these B. Mean C. Mode D. Median

29) Which of the following is the mean of the squared deviations of x values from the mean?

- A. Standard deviation
- B. population variance
- C. Sample variance
- D. None of these

30) A measure calculated for the population data is called:

- A. Sample statistic
- B. Population parameter
- C. An outlier
- D. None of these