Started on	Sunday, 12 December 2021, 5:19 PM
State	Finished
Completed on	Sunday, 12 December 2021, 5:47 PM
Time taken	27 mins 52 secs
Marks	23.00/25.00
Grade	**9.20** out of 10.00 (**92**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Which of the following is the most frequently used measure of variation?

- a. None of the other choices is correct
- b. The range
- c. The standard deviation ✔
- d. The mode

Your answer is correct.

The correct answer is:
The standard deviation

Question 2

Correct

Mark 1.00 out of 1.00

The nine measurements that follow are furnace temperatures recorded on successive batches in a semiconductor manufacturing process: 953, 950, 948, 955, 951, 949, 957, 954, 955. Which the two following statements are FALSE?

- [x] a. Median: 952.44 ✔
- [ ] b. Sample Variance: 9.53
- [ ] c. Sample Standard Deviation: 3.09
- [x] d. Sample Mean: 953 ✔

Your answer is correct.

The correct answers are:
Median: 952.44,

Sample Mean: 953

Question 3

Correct

Mark 1.00 out of 1.00

What are the median and mode of the following series : 2; 2; 2; 4; 4; 5; 5; 6; 8; 11; 12; 16; 18?

- a. 5 and 2
- b. 6 and 5
- c. 5 and 5
- d. None of the others
- e. 5.5 and 2

The correct answer is: 5 and 2

Question **4**

Correct

Mark 1.00 out of 1.00

The nine measurements that follow are furnace temperatures recorded on successive batches in a semiconductor manufacturing process: 953, 950, 948, 955, 951, 949, 957, 954, 955. Which the following statement is FALSE?

a. Median: 952.44 ✔

b. Sample Mean: 952.44

c. Sample Variance: 9.53

d. Sample Standard Deviation: 3.09

The correct answer is: Median: 952.44

Question 5

Correct

Mark 1.00 out of 1.00

If a psychologist observed that four 5-year-old children initiated 2, 4, 6, and 12 incidents of aggression during a play period, the mean number of aggressive incidents for this group of four children was

a. 9

b. 5

c. 6 ✔

d. None of the other choices is correct

e. 4

Your answer is correct.

The correct answer is:
6

Question **6**

Correct

Mark 1.00 out of 1.00

Eight measurements were made on the inside diameter of forged piston rings used in an automobile engine. The data (in millimeters) are 74.10; 74.30; 74.15; 74.00; 74.25; 74.20; 74.05; and 74.14. Calculate the sample mean.

a. None of these
b. 74.00875
c. 74.00578
d. 74.00815
e. 74.14875 ✔

The correct answer is: 74.14875

Question 7

Correct

Mark 1.00 out of 1.00

The nine measurements that follow are furnace temperatures recorded on successive batches in a semiconductor manufacturing process (units are F): 910; 918; 922; 938; 915; 921; 925; 931; 929. Find the sample mean, sample variance.

a. 923.22 and 73.94 ✔

b. None of others

c. 923.22 and 5.426

d. 923.22 and 8.59

Your answer is correct.

The correct answer is:
923.22 and 73.94

Question 8

Incorrect

Mark 0.00 out of 1.00

The measure of location which is the most likely to be influenced by extreme values in the data set is the

- a. median
- b. mean
- c. range
- d. mode

Your answer is incorrect.

The correct answer is:
range

Question 9

Correct

Mark 1.00 out of 1.00

The interquartile range (IQR) is ____

a. $Q_2 - Q_1$

b. $Q_3 - Q_1$ ✔

c. $Q_3 + Q_1$

d. $Q_3 + Q_2$

e. $Q_3 - Q_2$

The correct answer is: $Q_3 - Q_1$

Question 10

Correct

Mark 1.00 out of 1.00

Which statement is true for the scores of 1, 2, 3, 4, 5, 5, 7, 8, 9, and 10?

a. The mean is greater than the median ✔

b. The median is greater than the mean

c. The mean is less than the mode

d. The mode is greater than the median

Your answer is correct.

The correct answer is:
The mean is greater than the median

Question 11

Correct

Mark 1.00 out of 1.00

Construct the box-plot for the given data set:
23, 45, 36, 47, 50, 36, 36, 45

a. 23 - 36 - 40.5 - 47 - 50

b. 23 - 36 - 36 - 45 - 50

c. None of the other choices is correct

d. 23 - 36 - 40.5 - 45 - 50

e. 23 - 36 - 40.5 -46 - 50 ✔

Your answer is correct.

The correct answer is:
23 - 36 - 40.5 -46 - 50

Question 12

Correct

Mark 1.00 out of 1.00

Compute the sample standard deviation of the heights (in inches) of three men with heights of 64.9, 65, 65.5

a. 1.911

b. 0.321 ✔

c. None of the other choices is correct

d. 4.174

e. 3.652

Your answer is correct.

The correct answer is:
0.321

Question 13

Correct

Mark 1.00 out of 1.00

A measure of central tendency that divides the data into two equal parts is:

- a. mean
- b. percentile
- c. mode
- d. median ✔

The correct answer is: median

Question **14**

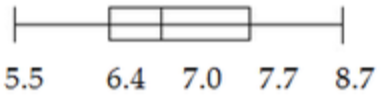
Correct

Mark 1.00 out of 1.00

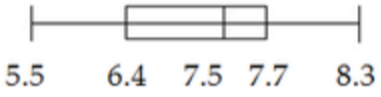
The weights (in pounds) of 30 newborn babies are listed below.
Draw a boxplot for the data set.

5.5 5.7 5.8 5.9 6.1 6.1 6.3 6.4 6.5 6.6
6.7 6.7 6.7 6.9 7.0 7.0 7.0 7.1 7.2 7.2
7.4 7.5 7.7 7.7 7.8 8.0 8.1 8.1 8.3 8.7

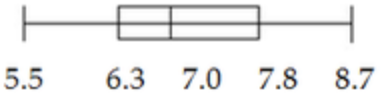
(i)



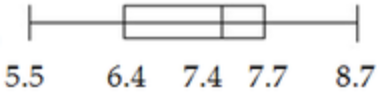
(iii)



(ii)



(iv)



- a. None of the other choices is correct
- b. (i)
- c. (iv)
- d. (ii)
- e. (iii)

Your answer is correct.

The correct answer is:
(i)

Question **15**

Correct

Mark 1.00 out of 1.00

The following data represents the high ambient temperature for a particular city over the past 16 days.

52	56	56	58	59	60	62	65
69	73	73	74	76	76	77	78

Construct a stem and leaf display for this data.

(i)

5	26689
6	0259
7	3346678

(ii)

5	26689
6	02599
7	3346778

(iii)

5	22669
6	0259
7	346778

- a. None of the other choices is true
- b. (II)
- c. (I)
- d. (III)

Your answer is correct.

The correct answer is:
(I)

Question 16

Correct

Mark 1.00 out of 1.00

Suppose that $\mu = 16$ and $\sigma^2 = 20$ for a population. In a sample where $n = 100$ is randomly taken, what is the standard deviation for the sample mean?

- a. 0.45 ✔
- b. 0.2
- c. 0.02
- d. 0.16
- e. None of the other choices is correct

Your answer is correct.

The correct answer is:
0.45

Question 17

Correct

Mark 1.00 out of 1.00

The _____ for a particular class is equal to the class frequency divided by the total number of observations.

- a. class relative frequency ✔
- b. class percentage
- c. stem-and-leaf display
- d. bar graph
- e. None of the other choices is correct

Your answer is correct.

The correct answer is:
class relative frequency

Question 18

Correct

Mark 1.00 out of 1.00

Consider the following sample data: 25 11 6 4 2 17
For these data the sample mean is:

a. None of the other choices is correct ✔

b. 10

c. 8

d. 3

e. 7

Your answer is correct.

The correct answer is:
None of the other choices is correct

Question 19

Correct

Mark 1.00 out of 1.00

An article in Human Factors (June 1989) presented data on visual accommodation (a function of eye movement) when recognizing a speckle pattern on a high-resolution CRT screen. The data are as follows: 35.35; 67.79; 38.87; 40.18; 36.72; 53.77; 39.30; and 49.79. The sample standard deviation is

a. None of others

b. 43.975

c. 11.173 ✔

d. 14.359

Your answer is correct.

The correct answer is:
11.173

Question 20

Correct

Mark 1.00 out of 1.00

The interquartile range (IQR) is

(i) $Q_3 + Q_2$

(ii) $Q_3 - Q_2$

(iii) $Q_3 + Q_1$

(iv) $Q_3 - Q_1$

(v) $Q_2 - Q_1$

a. (iv)

b. (iii)

c. (ii)

d. (v)

e. (i)

Your answer is correct.

The correct answer is:
(iv)

Question 21

Incorrect

Mark 0.00 out of 1.00

Consider the following sample data:
25 11 6 4 2 17 9 6
For these data the median is_____

- a. 7.5
- b. 10
- c. None of the other choices is correct
- d. 3.5

Your answer is incorrect.

The correct answer is:
7.5

Question 22

Correct

Mark 1.00 out of 1.00

Choose the correct phrase to fill in the blank:
The _____ for a particular class is equal to the class frequency divided by the total number of observations.

- a. class relative frequency ✔
- b. None of the other choices is correct
- c. class percentage
- d. bar graph
- e. stem-and-leaf display

Your answer is correct.

The correct answer is:
class relative frequency

Question 23

Correct

Mark 1.00 out of 1.00

A normal population has mean 96 and variance 14. How large must be the random sample be if we want the standard error of the sample mean to be 1.5?

a. None of others

b. 9

c. 6

d. 7

e. 8

Your answer is correct.

The correct answer is:
7

Question 24

Correct

Mark 1.00 out of 1.00

Each morning, a teacher quizzed his class with 20 geography questions. The class marked them together and everyone kept a record of their personal scores. As the year passed, each student tried to improve his or her quiz marks. Every day, Elliot recorded his quiz marks on a stem and leaf plot. This is what his marks looked like plotted out:

Stem	Leaf
0	365
1	01435656897955
2	0000

Find the mode of the data

a. None of the other choices is correct

b. 15

c. 20 and 15

d. 25

e. 20

Your answer is correct.

The correct answer is:
20 and 15

Question 25

Correct

Mark 1.00 out of 1.00

Suppose a study of houses that have sold recently in your community showed the following frequency distribution for the number of bedrooms:

Bedrooms	Frequency
1	1
2	18
3	140
4	57
5	11

Based on this information, determine the mode for the data.

- a. 3
- b. 4
- c. 57
- d. 140

Your answer is correct.

3

The correct answer is:
3