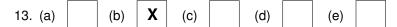
# R Exams

# Statistics Exam 2019-03-14

# Exam ID 00001

Name:				
Student ID:				
Signature:				
1. (a)	X	(b)		
2. (a)	X	(b)		
3. (a)	X	(b)		(c) <b>X</b> (d)
4. (a)		(b)	X	
5. (a)		(b)	X	
6. (a)		(b)	X	
7. (a)		(b)	X	
8. (a)		(b)	X	(c)
9. (a)	X	(b)		
10. (a)		(b)	X	
11. (a)		(b)	X	
12. (a)		(b)	X	(c) (d) (e)



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# 1. Problem

Part of understanding statistics is understanding what results mean in real life.

- (a) True
- (b) False

# **Solution**

- (a) True.
- (b) False.

# 2. Problem

The purpose of statistics is to make things more complicated.

- (a) False
- (b) True

#### Solution

- (a) True.
- (b) False.

# 3. Problem

What is a data frame in R?

- (a) It is a convenient way to group study data used for an analysis.
- (b) It is used for displaying graphical data.
- (c) It is a structure for storing data sets.
- (d) There is not such thing in R.

#### Solution

- (a) True.
- (b) False.
- (c) True.
- (d) False.

# 4. Problem

x=2 and x<-2 mean the same thing in R.

- (a) False
- (b) True

# **Solution**

- (a) False.
- (b) True.

# 5. Problem

Rstudio needs R to run.

(a) False

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(b) True

Solution

# 6. Problem

A variable we think is a CAUSE is called an INDEPENDENT variable or IV for short.

(a) False

(a) False.(b) True.

(b) True

#### Solution

- (a) False.
- (b) True.

#### 7. Problem

Another name for a dependent variable (DV) is an outcome variable.

- (a) False
- (b) True

#### **Solution**

- (a) False.
- (b) True.

# 8. Problem

In a study examining how quickly and accuratly nurses chart on an EMR page when different layouts are used, nurses are divided into three groups. One group charts on the regular EMR page. One group charts on modified layout #1. And one group charts on modified layout #2. After all nurses have completed their charting, the time to complete charting and the number of mistakes are measured. What type of variable is number of mistakes?

- (a) independent variable
- (b) dependent variable
- (c) not enough information

# **Solution**

- (a) False.
- (b) True.
- (c) False.

# 9. Problem

Randomization is one way we try to reduce unsystematic variation.

- (a) True
- (b) False

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# **Solution**

- (a) True.
- (b) False.

# 10. Problem

Longitudinal research measures at multiple points in time.

- (a) False
- (b) True

#### Solution

- (a) False.
- (b) True.

# 11. Problem

Validity means we measure what we intend to measure.

- (a) False
- (b) True

#### Solution

- (a) False.
- (b) True.

#### 12. Problem

What is the level of measurement for a variable called age?

- (a) ratio
- (b) not enough information
- (c) interval
- (d) ordinal
- (e) nominal

#### **Solution**

- (a) False.
- (b) True.
- (c) False.
- (d) False.
- (e) False.

#### 13. Problem

What level of measurement is a variable called parts per million where measurements look like 10, 15, 18, 20, etc.?

- (a) ordinal
- (b) ratio

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- (c) nominal
- (d) not enough information
- (e) interval

#### Solution

- (a) False.
- (b) True.
- (c) False.
- (d) False.
- (e) False.

#### 14. Problem

What level of measurement is a variable called race results where measurements look like first, second, third, etc.?

- (a) nominal
- (b) not enough information
- (c) ratio
- (d) ordinal
- (e) interval

# **Solution**

- (a) False.
- (b) False.
- (c) False.
- (d) True.
- (e) False.

# 15. Problem

What level of measurement is a variable called temperature in Celsius where measurements look like 36, 36.5, 37, 38. etc.?

- (a) not enough information
- (b) ratio
- (c) ordinal
- (d) interval
- (e) nominal

# **Solution**

- (a) False.
- (b) False.
- (c) False.
- (d) True.
- (e) False.

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# 16. Problem

What level of measurement is a variable called year in school where measurements look like freshman, sophomore, junior, senior?

- (a) interval
- (b) nominal
- (c) ratio
- (d) not enough information
- (e) ordinal

# Solution

- (a) False.
- (b) False.
- (c) False.
- (d) False.
- (e) True.

# 17. Problem

What level of measurement is a variable called weight in pounds where measurements look like 125, 135, 150, 195, 210, etc.?

- (a) nominal
- (b) interval
- (c) ratio
- (d) ordinal
- (e) not enough information

#### Solution

- (a) False.
- (b) False.
- (c) True.
- (d) False.
- (e) False.

#### 18. Problem

Categorical variables are made up of categories.

- (a) True
- (b) False

#### **Solution**

- (a) True.
- (b) False.

#### 19. Problem

Interval variables have a numerically meaningful zero point.

- (a) True
- (b) False

#### Solution

- (a) False.
- (b) True.

#### 20. Problem

What is true of interval level data?

- (a) Zero is arbitrary.
- (b) It is a categorical variable.
- (c) It is the next to lowest level of measurement.
- (d) Addition and subtraction may be performed.
- (e) The appropriate descriptive statistics are mean and standard deviation.
- (f) The distance between measurement points is unknown and inconsistent.
- (g) The mean, median, and mode are meaningful measures of central tendency.
- (h) Multiplication and division are not really appropriate.
- (i) Usually psychometric measurements.

#### **Solution**

- (a) True.
- (b) False.
- (c) False.
- (d) True.
- (e) True.
- (f) False.
- (g) True.
- (h) True.
- (i) True.