Econ 206/Test 2 (Write your name on your scantron; -2% if not)

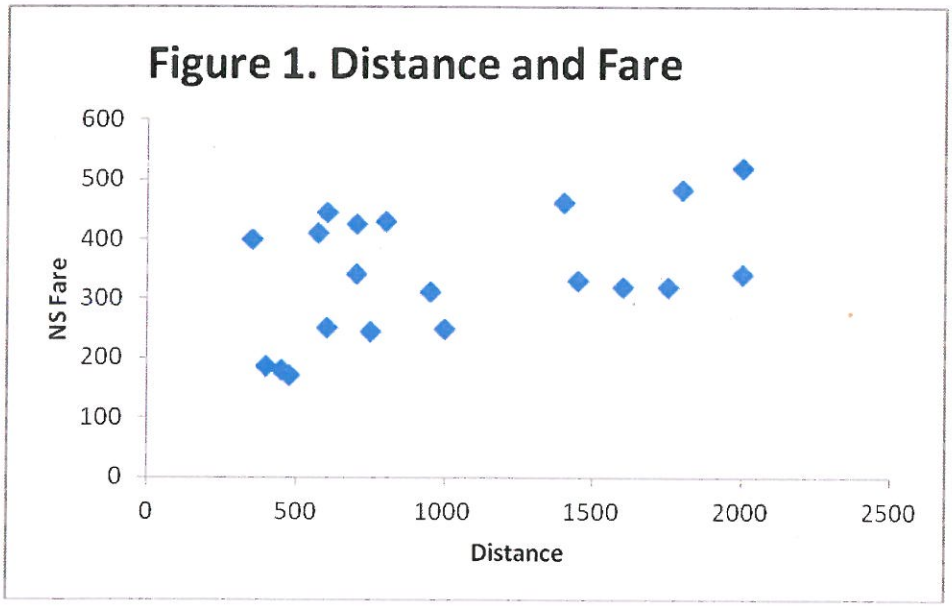
For questions 1-4, use the following information regarding the number of customers complaints for a five-week period: Week 1 = 11, Week 2 = 12, Week 3 = 13, Week 4 = 14, Week 5 =15

1. The standard deviation of complaints per week is (approximately)
a. 0.85 b. 1.85
c. 2.85 d. 3.2935

2. The median number of complaints per week is
a. 12 b. 13
c. 14 d. 15

3. For the first week, the standardized value for the number of complaints is (approximately)
a. 0.24 b. 1.1 1.3
c. -0.24 d. -1.1 -1.3

4. The statistical measure that summarizes the dispersion or spread of a data set is
a. the skewness coefficient b. the standard error
c. the standard deviation d. the median



5. Based on the figure above, the correlation coefficient in this case would be close to
a. -0.53 b. 0.10
c. 0.43 d. 0.87

6. The type of graphic displayed above is known as a
a. crosstabulation b. time plot
c. scatterplot d. point plot

The table below presents regression results using Air Fair (**in dollars**) as the dependent variable and Distance to the destination city (**in miles**) as the explanatory variable.

Air Fares Regression	
Multiple R	0.43
R Square	0.19
Adjusted R Square	0.46
Standard Error	96.29
Observations	20.00

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1.00	33683.07	33683.07	17.97	0.00
Residual	19.00	35612.74	1874.35		
Total	20.00	69295.81			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	257.00	21.63	7.29	0.00	112.34	202.88
Distance	0.10	0.02	4.24	0.00	0.04	0.13

7. Which of the following statements is accurate based on the regression table:
a. For each additional 10 miles of distance, predicted air fare increased by $1
b. For each additional dollar of air fare, distance increases by about 10 miles
c. For each 100 additional miles of distance, predicted air fare increases by about $10
d. None of the above

8. The value of 257 under "coefficients" indicates that
a. a flight of zero miles would have a fare of $257
b. a flight of 257 miles would have a fare of zero
c. a flight of 257 miles would have a fare of $100
d. none of the above

9. Written in equation form, the regression output above would be
a. Fare = 0.10 + 257*Distance
b. Fare = (257*0.10)*Distance
c. Distance = 257 + (0.10)*Fare
d. none of the above

10. A city that 1000 in distance would have a predicted air fare of
a. $357 b. $267
c. $1257 c. $577

11. Choose the correct statement based on the regression output
a. The regression equation implies that distance helps predict fare
b. Differences in distance explains about 96 percent of the differences in air fares
c. Distance is more important in explaining fares than any other variable
d. All of the above

The table below contains results for accounts broken down by the debt to income ratio of the borrower (high, low, medium) and whether the borrower defaulted (no,yes). The table dispays actual countsaccount had an irregularity or not (No=0, Yes=1). (Actual counts given in table)

DebtIncome * Default on Loan Crosstabulation

Count

		Default on Loan		Total
		No	Yes	
DebtIncome	high	21	40	61
	low	341	59	400
	medium	155	84	239
Total		517	183	700

12. The actual number of default accounts for high debt to income borrowers is
a. 61 b. 183
c. 40 d. none of the above

13. The total number of accounts in default is
a. 183 b. 40
c. 61 d. none of the above

14. The expected number of accounts in default for low debt to income borrowers is about
a. 59 b. 116
c. 104 d. 61

$\frac{400 \times 183}{700} = 104$

15. The table above indicates that
a. there are many more loans not in default than in default
b. there are more low debt to income accounts than any other type
c. low debt to income accounts defaulted much less than the expected amount
d. all of the above

16. When the accuracy of a regression coefficient is influenced by independent variables left out of the regression analysis, this problem is known as
a. regression bias b. errors in the variables bias
c. standard error d. none of the above

17. One example that we used to illustrate the problem described in 15 was
a. UK home basketball attendance
b. MLB concession revenues by game
c. Rotten tomato film ratings
d. WKU salary study

18. In regression analysis, the X-variable(s) is also known as

A

a. independent variable b. dependent variable
c. main variable d. none of the above

19. We used the DC Times blog regarding running and passing by the Dallas Cowboys to illustrate that

B

a. regression analysis is superior to crosstabulation for examining two variables
b. correlation does not necessarily imply causation
c. teams in the NFL pass the ball to much
d. none of the above

20. Which of the following illustrates the case where two variables are influenced by a third variable rather than influencing each other directly?

A

a. ACT and SAT
b. Price of Wine and Seasonal Rainfall
c. Health Care Spending and National Income
d. all of the above

21. Put A for your answer