WorldatWork

Exam C3E

Quantitative Principles in Compensation Management

Version: 3.0

[Total Questions: 54]

Question No : 1

On January 1 of last year, you had 1,000 emps. Dec 31 there was a 20% reduction in the workforce. By July of this year, you then increased your workforce by 20%. Do you now have 1,000 emps again? If not, how many?

A. Yes, 1,000
B. No; 800 emps on 12/31, 960 in July
C. No; 800 emps on 12/31, 850 in July
D. Not enough info to compute

Answer: B

Question No : 2

You have the following salary grades and midpoints. Your org wants to have a constant midpoint progression. What would be the midpoint percentage?

Grade 10 = Midpoint 2,000

Grade 11 = Midpoint 2,217

Grade 12 = Midpoint 2,456

Grade 13 = Midpoint 2,698

A. 8%
B. 9.6%
C. 10.5%
D. 11.7%

Answer: C

Question No : 3

Market based pay = Intercept + (slope) x (job worth). You have collected data and have quantified your model as follows: y = 15000 + 50x. The value of 15,000 in the model represents which of the following?

A. The slope of the line
B. The point where the line of best fit crosses the x-axis corresponding to a y-value of zero
C. The mean for y

D. The intercept for the line of best fit

Answer: D

Question No : 4

What is the median of the following data?

7, 17, 3, 19, 13, 9, 7

A. 7
B. 9
C. 13
D. 11

Answer: B

Question No : 5

Which of the following is true of distribution shapes for nominal data?

A. They generally are normal distributions
B. They are best represented skewed with a tail to the left
C. Nominal data should be represented via pie charts only
D. It might be most honest to simply list the categories in alphabetical order.

Answer: D

Question No : 6

Why do compensation professionals collect & use data?

A. To support personal agendas
B. To respond to stock price volatility
C. To improve changes of making sound decisions
D. To replace the need for modeling

Answer: C

Question No : 7

Suppose you were given the following data for salary grade 007: Min 4,800 Midpoint 6,000 Max 7,200

What is the salary range spread?

A. 35%
B. 37.5%
C. 40%
D. 50%

Answer: D

Question No : 8

Which of the following is a characteristic of a standard deviation?

A. The standard deviation is based on the middle portion of the data.
B. The standard deviation reflects the variation of values between two points.
C. The standard deviation uses all the data points from the data set in its calculation
D. At least 95% of the points in a data set will always be within +-2 standard deviations from the mean.

Answer: C

Question No : 9

For the same problem set, what should your organization pay for an entry-level production-manual editor, a job that has been determined to be worth 500 job evaluation points. y = 15000 + 50x

A. 50,000
B. 15,000
C. 25,000
D. 40,000

Answer: D

Question No : 10

What type of regression model does the following equation suggest? $y = a + b_1x_1$

A. Multiple factor regression
B. Nonlinear regression
C. Bivariate regression
D. Curvilinear regression

Answer: C

Question No : 11

You need 15,000 in two years in order to take that long-awaited and much deserved vacation of your dreams. You can earn 12% interest, compounded quarterly from your credit union. How much money do you need to set aside now?

A. 10,058.25
B. 11,841.14
C. 11,957.91
D. 12,802.36

Answer: B

Question No : 12

A true, absolute zero exists for which level of measurement?

A. Nominal
B. Ordinal
C. Interval
D. Ratio

Answer: D

Question No : 13

If the midpoint is 2,000 and the desired range spread is 50%, what are the min and max values?

A. 1,500 min; 2,500 max
B. 1,600 min; 2,400 max

C. 1,700 min; 2,300 max
D. 1,750 min; 2,250 max

Answer: B

Question No : 14

An employee earning 50,000 annually contributes 8% of his/her salary to a voluntary savings plan in the first year of participation. Excluding investment earnings, how much is in this employee's account at the end of the first year?

A. 2,000
B. 4,000
C. 5,500
D. 8,000

Answer: B

Question No : 15

According to the 2-sigma rule, which of the following is true?

A. Ninety-five percent of the data points will fall within two standard deviations of the mean.
B. Only 75% of the data points will fall within two standard deviations
C. At least 75 percent of the data points will fall within two standard deviations of the mean.
D. The 2-sigma rule only applies to nominal level data

Answer: C

Question No : 16

What does a correlation of +1.0 indicate?

A. A positive slope
B. A negative slope
C. A positive intercept
D. A negative intercept

Answer: A

Question No : 17

An executive is hired at 80,000/yr. His is guaranteed a 6,000 salary increase after 6 months. What % increase is that?

A. 6.0%
B. 6.5%
C. 7.0%
D. 7.5%

Answer: D

Question No : 18

Midpoint for grade 14 is 950, and the max is 1,200. Assuming that the structure is symmetric, what is the range spread? (rounded)

A. 21%
B. 26%
C. 52%
D. 71%

Answer: D

Question No : 19

If you earn 50,000 per year and your co-worker in the same job earns 60,000, what percent adjustment do you need to equal your co-worker?

A. 18%
B. 20%
C. 10%
D. 80%

Answer: B

Question No : 20

You have 660 hourly, 420 salaried non-management and 320 salaried management employees. What is the percentage of salaried non-management employees?

A. 23%
B. 30%
C. 45%
D. 47%

Answer: B

Question No : 21

You start with 1,800 in your savings account. You do not make any deposits or withdrawals and earn 10% interest, compounded quarterly. How much money will you have in your account after five years?

A. 1,149.51
B. 2,674.71
C. 2,898.92
D. 2,949.51

Answer: D

Question No : 22

You have been asked to comment on a proposed provision in the union contract. over the next 3 years, management proposes increases of 2%, 2.5%, 3% over the 3 year life of the contract. The union negotiator insists that it be 3%, 2.5%, 2.0%. Assuming the hourly rate for a job class is 12.50/hr., what is the rate in three years?

A. It will be 13.46 after three years
B. Management rate is higher
C. Union rate is higher
D. Cannot calculate

Answer: A

Question No : 23

What are percentile bars?

A. A tool to help visualize the distribution of data
B. The value that occurs most often among a data set
C. Representations of the median salary in an organization's pay grades
D. The most common method of representing unweighted means

Answer: A

Question No : 24

Which of the following is characteristic of a normal distribution?

A. It represents a perfect distribution of data
B. It generally is skewed with a tail to the right
C. It is best used to force a desired outcome.
D. It approximates the distribution of naturally occurring phenomena.

Answer: D

Question No : 25

Twelve percent of your workforce of 9,500 lives in France. How many people in your workforce live in France?

A. 962
B. 1,000
C. 1,140
D. 1,212

Answer: C

Question No : 26

You spent 30% of your budget on merit increases three years ago, 35% two years ago, and 40% last year. When was the most money spent on merit increases?

A. Three years ago
B. Two years ago
C. Last year

D. It cannot be determined based upon the information given.

Answer: D

Question No : 27

A survey shows the average pay for senior accounting clerks is 1,570/mth. Your midpoint for senior-accounting clerks is 1,670 and the average actual pay is 1,550. What is your compa-ratio for accounting clerks? What is your market index?

A. .928 compa, .987 market
B. .928 compa, 1.064 market
C. .987 compa, 1.064 market
D. .987 compa, 1.013 market

Answer: A

Question No : 28

What type of relationship does this equation model?

$y = a + bx + cx2$

A. Nonlinear regression
B. Straight line regression
C. Bivariate regression
D. All of the above

Answer: A

Question No : 29

How can compensation professionals ensure their statistical data are not distorted?

A. Use statistical software, which prevents distortion of data.
B. Develop a plan that provides an objective approach to collecting, organizing and displaying data
C. Avoid training that shows how data can be distorted, as that training might cause one to distort data subconsciously.
D. Distortion of data is commonly accepted as a method for making compelling arguments

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for change in orgs.

Answer: B

Question No : 30

A range can best be described as which of the following?

A. A measure of central tendency
B. The difference between the maximum value and the minimum value in a data set
C. A tool used to measure the variation of a data set based on the middle 50 percent of the cases
D. The only measure of variability appropriate for ratio data

Answer: B

Question No : 31

If the minimum is 2,000 and the desired range spread is 40%, what is the midpoint?

A. 2,000
B. 2,300
C. 2,400
D. 2,800

Answer: C

Question No : 32

For the same problem set, what does the value 50 represent in the same equation? $y = 15000 + 50x$

A. The monetary market-based pay increase associated with every additional point value in the job worth scale
B. The ratio of the change in y-values relative to the change in x-values on the line of best fit
C. The slope of the line
D. All of the above

Answer: D

Question No : 33

Which of the following describes an annuity?

A. What is given up when an investment decision is made
B. An investment that pays on a scheduled basis over a fixed amount of time
C. Interest that is applied at the end of the period and only on the beginning balance or principle.

Answer: B

Question No : 34

What type of relationship does the following equation model? $y = a + b_1x_1 + b_2x_2$

A. Nonlinear regression
B. Straight line regression
C. Multiple linear regression
D. All of the above

Answer: C

Question No : 35

You have obtained a set of market data that show you senior MIS manager has a market average of 72,000. If you have a 50% range spread, what would the new minimum and maximum be if the new midpoint is 72,000?

A. 54,000; 90,000
B. 57,600; 86,400
C. 60,000; 84,000
D. They cannot be determined from the data given

Answer: B

Question No : 36

George & Kevin agree to job share. George will work two 10-hour days and Kevin will work three 7-hour days. What percent of the total weekly hours is George going to work?

A. 39.5%
B. 50%
C. 48.8%
D. 51.2%

Answer: C

Question No : 37

Makayla's salary has grown at a rate of 7.3% per year for the past six years. If her increases remain the same, how long will her salary take to double?

A. 9.86 years
B. 10.42 years
C. 13.20 years
D. 27.10 years

Answer: A

Question No : 38

At 10% investment return, what would be in the same employee's account including investment earnings at the end of the year?

A. 2,160
B. 4,400
C. 5,940
D. 8,640

Answer: B

Question No : 39

A distribution that is skewed with a tail to the left is which of the following?

A. Positively skewed
B. Symmetric

C. Negatively skewed
D. Normal

Answer: C

Question No : 40

How much interest will you earn on 2,500 in three years, if the interest rate is 6%, and the interest is compounded annually?

A. 309
B. 477.54
C. 489.05
D. 977.54

Answer: B

Question No : 41

Salary is an example of which level of measurement?

A. Nominal
B. Ordinal
C. Interval
D. Ratio

Answer: D

Question No : 42

The average seniority for your company is 16 years, and the standard deviation for seniority is one year. You have been with the co for 19 yrs, and your sister for 13 years. Which of the following is not necessarily true?

A. Your "years of seniority" value is three standard deviations above the average emp in your company.
B. Your sister has a z-score of -3.00 in regards to her seniority with the company.
C. The seniority for at least 88.9% of the emps in this company will fall between your sister's seniority and yours.

D. You are the most senior employee in your company.

Answer: D

Question No : 43

Which of the following provide useful guidelines for grouping data into categories?

A. Use a constant width for all categories
B. Use mutually exclusive categories
C. Do not allow categories to overlap
D. All of the above

Answer: D

Question No : 44

In order to satisfy ordinal level data requirements, you must be able to do which of the following?

A. Have a true zero
B. Have a constant interval from point to point
C. Be able to meaningfully arrange the data in rank order
D. Be able to establish ratios

Answer: C

Question No : 45

What is the individual compa-ratio for an employee whose salary is 25,000 per year when the midpoint of the salary structure is 30,000?

A. .17
B. .83
C. 1.20
D. .80

Answer: B

Question No : 46

In positively skewed distributions, the mean is usually which of the following?

A. Larger than the median
B. Between the median and the mode
C. Smaller than the median
D. Equal to the median

Answer: A

Question No : 47

You have been given the task of examining the effect of a pay-for-performance project on employee productivity. You have obtained a productivity rating score for all program participants. Which of the following best describes your data?

A. The data represents a sample
B. The data represent a population
C. Productivity rating scores only produce nominal data
D. Productivity rating scores always produce ratio data.

Answer: B

Question No : 48

For the same problem set, the market appears to be paying entry-level buyers 42,500. Approx how many job evaluation points should your entry-level buyer position be worth to your org, assuming the regression model provides a good fit, based solely on the linear model of y = 15000 + 50x?

A. 50
B. 15000
C. 500
D. 550

Answer: D

Question No : 49

What is interpolation?

A. A value that a given percent of the data is less than
B. An exact value representing a remainder
C. A whole number that represents the sum of a data set
D. A statistical representation of standard deviation

Answer: B

Question No : 50

Which of the following should be used to determine the amount of interest earned on money over a specified period of time?

A. Percent difference
B. Percent adjustment
C. Compound interest
D. Compa-ratio

Answer: C

Question No : 51

Why do we sample?

A. Because samples are more accurate than populations
B. Because of the lack of time and money
C. Because computers only work with sample data
D. Because population data are unreliable

Answer: B

Question No : 52

Rating employee performance on a five-point scale is most likely an example of which level of measurement?

A. Nominal
B. Ordinal
C. Interval

D. Ratio

Answer: B

Question No : 53

Suppose your monthly pay is 3,000. The mean for all employees in your grade is 3,500, and the standard deviation is 200. What is your z-score relative to this group of employees?

A. 3.0
B. 2.5
C. -2.5
D. -3.0

Answer: C

Question No : 54

What is the mode for the following set of numbers?

15, 18, 13, 19, 25, 24, 26, 14, 25, 35, 12, 99, 54, 13, 22, 19, 13

A. 19
B. 26
C. 24
D. 13

Answer: D