Economic Zoology:BIO401 mega questions FILE FOR FINAL TERM

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Short question important bio401

Q.1: **Define Cut -point ?**

A cut-point is a point of a connected space such that its removal causes the resulting space to be disconnected. If removal of a point doesn't result in disconnected spaces, this point is called a non-cut point.

For example, every point of a line is a cut-point, while no point of a circle is a cut-point.

Define.

1. **QUINTiLES.?**

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Each quintile count the total income, and divide by the number of cases in each quintile. In the above example the individuals in the poorest quintile earn an average of 2,500 while those in the highest quintile earn an average of 13500

2. What is a quintile in statistics?

A quintile is a statistical value of a data set that represents 20% of a given population, so the first quintile represents the lowest fifth of the data (1% to 20%); the second quintile represents the second fifth (21% to 40%) and so on.

3. **Define Location parameter.**:?

The location parameter tells you where your graph is located. More specifically, it tells you where on the horizontal axis a graph is centered, relative to the standard normal model. ... A location parameter of -10 moves the graph 5 units to the left of zero, at x = -5.

4. Define dispersion?

Dispersion is a statistical term that describes the size of the distribution of values expected for a particular

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variable and can be measured by several different statistics, such as range, variance, and standard deviation.

Or

Dispersion is defined as the extent to which the Observations in the dataset are spread away from

The central value. Measures of Dispersion are the methods that Convey information regarding the amount of Variability present in the set of data. If all the values in the data are the same then There is no dispersion.

5. What is dispersion and its types?

In an optical medium, such as fiber,

Types

there are three types of dispersion, chromatic, modal, and material. Chromatic Dispersion. Chromatic dispersion results from the spectral width of the emitter. The spectral width determines the number of different wavelengths that are emitted from the LED.

6. Measure of dispersion .?

(I) Absolute Measures of Dispersion.

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Measures which are Expressed in terms of the Same units as the original Data are termed as Absolute Measures of Dispersion.

(ii) Relative DispersionDispersion.

Measures which are Expressed in terms of the Ratios and percentages These measures are

Independent of the units Of measurement and Termed as Relative Measures of Dispersion.

Each absolute measure Of dispersion can be Converted into its Relative measure. Relative measure of

Dispersion are used to Make comparisons Between different Datasets, irrespective Of their units of

Measurements.

7. **Relative measure of Dispersion ?**

Relative measure of Dispersion are used to Make comparisons Between different

Datasets, irrespective Of their units of Measurements.

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Types.

Absolute Measures of Dispersion are of Different types.

- Range
- Quartile Deviation
- Mean Absolute Deviation
- Standard Deviation and Variance

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8. **Define Range?**

The difference between the maximum and the Minimum value in the data.

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•.it is sensitive to only the most extreme values in the list. The range of

A list is 0 if and only if all the data-points in the list are equal.

9. **What are Quartile Deviation (Q.D.)**

Quartile Deviation is the half distance between the Upper Quartile Q3

(i.e. 75th percentile) and Lower Quartile Q1

(i.e. 25th Percentile).

• Essentially describes that how much the middle 50% of the data

Varies.

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10. Mean Absolute Deviation

Each distance we calculate is called an Absolute Deviation, because it is the Absolute Value of the deviation (how far from the mean).

11. Difference between absolute deviation and mean absolute deviation?

Mean absolute deviation (MAD) of a data set is the average distance between each data value and the mean. Mean absolute deviation is a way to describe variation in a data set. Mean absolute deviation helps us get a sense of how "spread out" the values in a data set are.

12. · Standard Deviation and Variance?

Standard deviation is the measure of dispersion of a set of data from its mean. It measures the absolute variability of a distribution; the higher the dispersion or variability, the greater is the standard deviation and greater will be the

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magnitude of the deviation of the value from their mean.

13. **Define Variance?**

It is defined as the mean of the squared deviations of the

Observations from their mean.

14. **What are Properties of Variance?**

1. The variance of a constant is equal to zero.

2. The variance is independent of Origin, i.e. it remains unchanged

When a constant is added to or subtracted from the each and

Every observation of the data.

3. The variance is multiplied or divided by the square of the

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Constant if each observation is multiplied or divided by the same

15. Define Coefficient of Variation?

The coefficient of variation (CV) is the ratio of the standard deviation to the mean. The higher the coefficient of variation, the greater the level of dispersion around the mean. It is generally expressed as a percentage. … The lower the value of the coefficient of variation, the more precise the estimate.

16. What is Measures of Skewness ?

- Coefficient of Skewness help us to measure

Amount of the departure from symmetry.

- It is denoted by

Karl Pearson (1857 – 1936)

17. How Shape of distribution can be describe?

The shape of a distribution is described by its number of peaks and by its possession of

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symmetry, its tendency to skew, or its uniformity. (Distributions that are skewed have more points plotted on one side of the graph than on the other.)

18. What is Correlation?

Correlation is a statistical measure that expresses the extent to which two variables are linearly related (meaning they change together at a constant rate). It's a common tool for describing simple relationships without making a statement about cause and effect.

19. Define Probability and how to calculate?

The probability of an event is the number of favorable outcomes divided by the total number of outcomes possible.

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Formula for the probability of A and B (independent events): p(A and B) = p(A) * p(B). If the probability of one event doesn't affect the other, you have an independent event. All you do is multiply the probability of one by the probability of another.

20. What is Regression analysis?

Regression analysis is a reliable method of identifying which variables have impact on a topic of interest. The process of performing a regression allows you to confidently determine which factors matter most, which factors can be ignored, and how these factors influence each other.

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21. Pros and Cons

The pros and cons of something are its advantages and disadvantages, which you consider carefully so that you

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can make a sensible decision. They sat for hours debating the pros and cons of setting up their own firm.

22. Definition of Pie Chart

A pie chart is a circular statistical graphic, which is divided into slices to illustrate numerical proportion. In a pie chart, the arc length of each slice, is proportional to the quantity it represents.

23. What are Qualitative and quantitative variables?

Quantitative Variables – Variables whose values result from counting or measuring something. Examples: height, weight, time in the 100 yard dash, number of items sold to a shopper. Qualitative Variables – Variables that are not measurement variables. Their values do not result from measuring or counting.

24. Define Relative frequency?

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In an experiment or survey, relative frequency of an event is the number of times the event occurs divided by the total number of trials. For example, if you observed. Passing cars and found that of them were red, the relative frequency would be .

25. Define Relative Frequency Distributions ?

A relative frequency distribution consists of the relative frequencies, or proportions (percentages), of observations belonging to each category. The relative frequencies expressed as percents are provided in Table 1.5 under the heading Percent and are useful for comparing frequencies among categorie

26. What is Relative Frequency Histograms?

A relative frequency histogram is a type of graph that shows how often something happens, in percentages. ... The price of the categories ("bins") are on the horizontal axis (the x-axis) and the relative frequencies (percentages of the whole) are shown in the vertical column (the y-axis).

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27. What is Kurtosi ? definition

Kurtosis is a statistical measure that defines how heavily the tails of a distribution differ from the tails of a normal distribution. In other words, kurtosis identifies whether the tails of a given distribution contain extreme values

28. Define Absolutely measure of depression?

An absolute measure of dispersion contains the same unit as the original data set. Absolute dispersion method expresses the variations in terms of the average of deviations of observations like standard or means deviations. It includes range, standard deviation, quartile deviation, etc.

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