

FBQ1: Information in the form of numerical figure is termed _____

Answer: *Data*

FBQ2: The statistical method in which quantitative information are gathered and handled is called _____

Answer: *Descriptive*

FBQ3: The type of variables that can be placed into distinct categories, according to some attribute is called _____

Answer: *Qualitative*

FBQ4: The subgroup of the population selected for study is referred to as _____

Answer: *Sample*

FBQ5: An estimation of the plant cover on a 5000 m by 5000 m land is to be conducted, this involves division of such land into smaller units and a number of such units are randomly selected and used as a sample. What type of sampling procedure is this?

Answer: *Cluster*

FBQ6: In a sampling procedure involving given fresh water habitat, 10 catfish was selected from the population of 100 catfish while 200 Tilapia fish was selected from a population of 2000 Tilapia fish. What type is sampling method is this?

Answer: *Proportionate*

FBQ7: What type of method is involved in a sampling procedure in which every fish in a fish pond has equal chances of being included in a sample?

Answer: *Random*

FBQ8: What type of method is involved in a sampling procedure in which every corn plant that is 1m apart in a particular farm will be included in a sample?

Answer: *Systematic*

FBQ9: The organisation of raw data in table form, using classes and frequencies is called _____

Answer: *Frequency distribution*

FBQ10: Find the mean of the following quantitative data: 20 20 23 23 24 24 24 25 25 25 27 27 27 27 27 28 28 28 29 29 30 30 30 30 30 30 36 36 38 40

Answer: *28*

FBQ11: Find the mode of the following quantitative data: 20 20 23 23 24 24 24 25 25 25 27 27 27 27 27 28 28 28 29 29 30 30 30 30 30 30 30 36 36 38 40

Answer: *30*

FBQ12: Find the class width for the data below: 18 20 18 18 24 10 15 12 29 36 13 20 18 24 18 16 16 20 8

Answer: *4.8*

FBQ13: In a Mendellian crossing, what is the probability of getting a heterozygous tall plant in F1 plant?

Answer: *0.5*

FBQ14: What is the probability of obtaining a homozygous recessive plant in a Mendellian F1 plant?

Answer: *0.00*

FBQ15: χ^2 can take any value from zero to in infinity. True or False

Answer: *True*

FBQ16: In a cross between a homozygous black sheep and homozygous white sheep, assuming the black colour is recessive, what is the probability of getting a white sheep in the F1?

Answer: *1*

FBQ17: In a cross between a homozygous black sheep and homozygous black sheep, assuming the black colour is recessive, what is the probability of getting a white sheep in the F2?

Answer: *0.75*

FBQ18: In a cross between a homozygous black sheep and homozygous black sheep, assuming the black colour is recessive, what is the probability of getting a black sheep in the F2?

Answer: *0.25*

FBQ19: Given the formula $z = \frac{\bar{x} - \mu}{\sigma/\sqrt{n}}$, what does μ stand for?

Answer: *Population mean*

FBQ20: Given the formula $z = \frac{\bar{x} - \mu}{\sigma/\sqrt{n}}$, what does $\bar{x}$ stand for?

Answer: *Sample mean*

FBQ21: A statistical hypothesis that states that there is no difference between a parameter and a specific value, or that there is no difference between two parameters is called _____

Answer: *Null*

FBQ22: The range of values of the test values that indicates that there is significant difference and that the null hypothesis should be rejected is termed _____

Answer: *Critical values*

FBQ23: What is the meaning of χ^2 ?

Answer: *Chi-square*

FBQ24: A general method for testing compatibility based on a measure of the extent to which the observed and expected frequencies agree is termed _____

Answer: *Chi-square*

FBQ25: Given the equation to test for relationship between variables as $Y = a + bX$, what does $\hat{a}$ stands for?

Answer: *Intercept*

FBQ26: In a complete randomized design, what type of analysis is best suited for comparing the means?

Answer: *One-way ANOVA*

FBQ27: The non- parametric equivalent of the Pearson coefficient used for testing hypothesis when samples obtained are not normally distributed is called

Answer: *Spearman rank correlation*

FBQ28: When the data that are being analysed using statistical tools, are derived from the fields of biological sciences it is called _____

Answer: *Biostatistics*

FBQ29: A subgroup of the population selected for study is termed _____

Answer: *Sample*

FBQ30: A _____ sample is one that has the same chance as any other of being selected

Answer: *Random*

FBQ31: Calculate the percentage of B blood group among the 40 students in a Biostatistics class _____
A, AB, B, O, O, A, B, AB, A, B, O, O, O, A, AB, B, B, A, O, AB, A, O, O, A, AB, B, B, A, A, B, AB, A, O, B, AB, O, A, B, A, B.

Answer: *27.5*

FBQ32: The full meaning of RBD is _____

Answer: *Randomized Block Design*

FBQ33: In a Spearman rank correlation, if the two sets of data have the same ranks, then r_s will be _____

Answer: *+1*

FBQ34: Systematic procedure for making observations under controlled conditions in such a way that they can be used for arriving at general conclusions regarding the population under study is called (a)an _____

Answer: *Experiment*

FBQ35: The range of values for correlation coefficient is from _____

Answer: *-1 to +1*

Multiple Choice Questions (MCQs):

MCQ1: Which of the following is not a common statistical package?

Answer: MINITAB

MCQ2: Which of the following analyses can be executed using SPSS?

Answer: All the given options

MCQ3: The full meaning of SPSS is_____

Answer: Statistical Package for Scientific Study

MCQ4: In a Randomized block design, what type of analysis is best suited for comparing the means?

Answer: Latin square

MCQ5: An experimental design in which the total area is divided into blocks and all of the treatments are arranged within each block in a random order is called_____

Answer: Completely randomized design

MCQ6: Which experimental design is best suited for evaluating the effects of a feed of different protein levels on the growth of quails or fish of the same age?

Answer: Completely randomized design

MCQ7: Find the correlation between the yield of pepper plant and the length of the plant in the following:

Answer: 0.954

MCQ8: The principle involved in any experimentation include the following except_____

Answer: Randomization

MCQ9: What type of correlation is provided in the chart below?

Answer: Perfect positive correlation

MCQ10: In a situation whereby a change in variable A is almost exactly matched by a change in variable B implies_____

Answer: Zero correlation

MCQ11: Which of the following is not an example of a curvilinear regression?

Answer: Algorithmic

MCQ12: What type of correlation is involved in studying the relationship between growth in snails and different feed protein levels, quantity of feed given per day and hours of lighting per day?

Answer: Multiple relationship

MCQ13: The equation $Y = a + bX$ represents_____

Answer: Correlation

MCQ14: A young researcher is interested in finding out the relationship between height and yield in okra plant, which of the following statistical analysis is best suited for such analysis?

Answer: Correlation

MCQ15: Which of the following is not true about Chi-square distribution?

Answer: It is symmetrical

MCQ16: Which of the following is true about the student's t-test?

Answer: All the given options

MCQ17: A Type II error occurs if _____

Answer: One does not reject the null hypothesis when it is untrue

MCQ18: Assuming the following values of a sample are given: $\bar{x} = 454$, $n = 120$, standard deviation (S) = 27, $\hat{\sigma}^2 = 460$, $\hat{\alpha} = 0.05$ or 95 (confidence coeff.). What is the status of H_0 ?

Answer: Accept

MCQ19: Which of the following statements is not true about statistics?

Answer: It refers to collection of quantitative information

MCQ20: Biostatistics is used in the following field of endeavours except

Answer: Biology

MCQ21: Which of the following is not a source of variation in a given population?

Answer: Age of the population

MCQ22: Which of the following is true about continuous variables?

Answer: Can only be assigned integers

MCQ23: The following are the reasons why sampling is important except

Answer: It saves time

MCQ24: Which of the following sampling methods is not part of the common types?

Answer: Random

MCQ25: The following are the advantages of using a cluster sample over other types of sampling methods except:

Answer: Cost reduction

MCQ26: Which of the following is the correct formula for calculating a class midpoint?

Answer: $X_m = \frac{\text{Lower Limit} + \text{Upper Limit}}{2}$

MCQ27: Which of the following is not a method of data representation?

Answer: Bar chart

MCQ28: In a study on the distribution of tree-roosting birds, if there are 200 birds randomly distributed on 500 trees, what is the probability that a given tree contains exactly three birds?

Answer: $\frac{1}{500}$

MCQ29: A binomial experiment usually satisfies the following requirements except

Answer: There must be a fixed number of trials

MCQ30: Which of the following symbols conforms to a null hypothesis?

Answer: H3

MCQ31: Which of the following is not true about a one-tailed test?

Answer: A one-tailed test right- tailed when the inequality sign is $>$;

MCQ32: In a two-tailed test, when should the null hypothesis be rejected?

Answer: When the test value is in either of the two critical regions

MCQ33: If there is no relationship between the rankings in a Spearman rank correlation, then r_s will be

Answer: >1

MCQ34: In a Latin square experimental design the number of rows, columns, and treatments _____

Answer: Are different and the treatment are given at random intervals

MCQ35: Study the quantitative data given below and find the mean

20 20 23 23 24 24
24 25 25 25 27 27 27 27 27 28 28 28 29 29 30 30 30 30 30 30 36 36 38 40

Answer: 28