

## stt205 List of Questions

*Latex formatted questions may not properly render*

**Q1** The 75th percentile is the same as the \_\_\_\_ quartile


- ☐ 1st
- ☐ 2nd
- ☒ 3rd
- ☐ 4th

**Q2** 19. Which of these is closer to the mode for a skewed distribution


- ☐ median
- ☐ skewness
- ☒ mean
- ☐ modal

**Q3** The difference between the harmonic mean of 2, 4, 8 and their geometric mean is


- ☐ 0.47
- ☒ 0.57
- ☐ 0.67
- ☐ 0.48

**Q4** The empirical relationship between the mean and median is given by;  $\text{mean} - \text{mode} = 3(\text{mean} - \text{median})$  in the table below . Then x is \_\_\_\_\_

- ☐ 4.5
- ☐ 3.0
- ☐ 4.0
- ☒ 1.0

**Q5** If the mode of the distribution is X the  $\frac{X}{2}$  in the table below  is \_\_\_\_\_

- ☐ 9
- ☐ 3
- ☐ 18
- ☒ 2.5

**Q6** The sum of the frequencies of 16 and 18 in the table below  is \_\_\_\_\_

- ☒ 15
- ☐ 3
- ☐ 12
- ☐ 14

**Q7** What is the range of the set of data in the below 

- ☐ 6.5
- ☐ 17
- ☒ 6
- ☐ 21

**Q8** Any arrangement of r objects selected from a single group of n possible objects is called a \_\_\_\_\_

- ☐ factorial
- ☒ combination

- ☐ notation
- ☐ permutation

**Q9 What is the probability of not getting a 1 in the toss of a single die**


- ☐  $\frac{1}{6}$
- ☐  $\frac{3}{5}$
- ☐  $\frac{5}{6}$
- ☐  $\frac{2}{3}$

**Q10 \_\_\_\_\_ is not a measure of dispersion**


- ☐ mean
- ☐ variance
- ☐ standard deviation
- ☐ coefficient of variation

**Q11 A frequency curve of a normal distribution is \_\_\_\_\_ shaped**

- ☐ cup
- ☐ bell
- ☐ oblong
- ☐ octagon

**Q12 Calculate the standard deviation of the set of data in the table below** 

- ☐ 56.65
- ☐ 51.56
- ☐ 56.51
- ☐ 13.73

**Q13 Calculate 70% of the mean of the set of data in the table below** 

- ☐ 2.975
- ☐ 29.75
- ☐ 42.5
- ☐ 4.25

**Q14 What is the relative cumulative frequency of 50 in the table below** 

- ☐  $\frac{4}{5}$
- ☐  $\frac{7}{20}$
- ☐ 1
- ☐ 16

**Q15 What is the cumulative frequency of 40 in the table below** 

- ☐  $\frac{9}{20}$
- ☐ 9
- ☐ 7
- ☐ 10

**Q16 Which of the following is not a source of data**

- ☐ Micro-statistical information
- ☐ Macro-statistical information
- ☐ Statistical information in business
- ☐ survey designs

**Q17 \_\_\_\_ is not an advantage of secondary data**

- ☐ They are inexpensive to collect
- ☐ They are available on a wide range of subjects
- ☐ They can be used to establish trends for forecasting
- ☐ They are the most appropriate for any statistical work

**Q18 Primary data is not collected through**

- ☐ surveys
- ☐ observations
- ☐ experiments
- ☐ gazettes

**Q19 Which of the following statement does not represent a role of statistics in the society**

- ☐ Government uses statistics as a tool for collecting economic aggregates
- ☐ Government uses statistics only for census
- ☐ Businesses use statistics to monitor the national economy
- ☐ Government uses statistics to measure the effect of external factors on its policies

**Q20 A characteristics that assumes different values for different entities is called \_\_\_\_\_**

- ☐ sample
- ☐ population
- ☐ variable
- ☐ random

**Q21 \_\_\_\_ is the degree of peakness of a distribution**

- ☐ symmetry
- ☐ platykurtic
- ☐ variation
- ☐ kurtosis

**Q22 What is the geometric mean of 3, 5, 6, and 7**

- ☐ 3.21
- ☐ 5.01
- ☐ 4.33
- ☐ 4.21

**Q23 A Poisson distribution is given by  $p(x) = \frac{0.72^x e^{-0.72}}{x!}$ . Calculate the variance**

- ☐ 0.23
- ☐ 0.72
- ☐ 5.72
- ☐ 2.27

**Q24 The addition rule of probability is used for \_\_\_\_ events**

- ☐ independent
- ☐ mutually exclusive
- ☐ ) mutually inclusive
- ☐ dependent

**Q25 \_\_\_\_ is not an axiom of probability**

- ☐  $\sqrt{P(E)} \leq 0$
- ☐  $\sqrt{P(\Omega)} = 0$
- ☐  $\sqrt{P(E)} \leq 1$
- ☐  $\sqrt{P(\Omega)} = 1$

**Q26 The square root of the sum of deviations of a set of numbers from their arithmetic mean is**

- ☐ zero
- ☐ standard deviation
- ☐ minimum
- ☐ maximum

**Q27 There are 5 different items to be stocked in a store with 3 bins for the storage. What are the possible number of arrangements**

- ☐ 36
- ☐ 60
- ☐ 55
- ☐ 37

**Q28 The following are examples of discrete random variables except**

- ☐ Bernoulli distribution
- ☐ Binomial distribution
- ☐ Poisson Distribution
- ☐ Normal Distribution

**Q29 36. If 5, 8, 6 and 2 occur with frequencies 3, 2, 4 and 1 respectively, find the mean**

- ☐ 5.75
- ☐ 5.7
- ☐ 15.7
- ☐ 9.7

**Q30 In an examination the score obtained is weighted 3 times as much as a test score. If a student scored 85% in the examination with a test score of 90%, what is his mean score**

- ☐ 0.8625
- ☐ 0.8825
- ☐ 0.937
- ☐ 0.9

**Q31 A student scored 45% in MTH101, 62% in MTH102, 30% in BUS103, and 70% in ACC101. Find his GPA if the respective credits are 3, 2, 2, 3**

- ☐ 3.10
- ☐ 2.90
- ☐ 63%
- ☐ 3.90

**Q32 Suppose there are 70 students in an examination with the students writing at least one of the subjects; Chemistry, Physics and Biology. Thirty(30) students offer Physics, 33 offer Chemistry and 40 offer biology, 10 students offer both Physics and Chemistry. Fourteen (14) of the students offer Physics and Biology, and 15 of them offer Biology and Chemistry. How many students offer only Biology**

- ☐ 11
- ☐ 17
- ☐ 10

**Q33 Suppose there are 70 students in an examination with the students writing at least one of the subjects; Chemistry, Physics and Biology. Thirty(30) students offer Physics, 33 offer Chemistry and 40 offer biology, 10 students offer both Physics and Chemistry. Fourteen (14) of the students offer Physics and Biology, and 15 of them offer Biology and Chemistry. Find the number of students that offer all subjects**

- ☐ 11
- ☐ 6
- ☐ 7
- ☐ 8

**Q34 An impossible event has the probability**

- ☐ 1
- ☐ 0
- ☐ 0.5
- ☐ 0.25

**Q35 The first step involved in constructing a group frequency distribution is to \_\_\_\_\_ (a) (b) count the number of items**

- ☐ tally
- ☐ count the number of items
- ☐ distribute
- ☐ determine the number of classes

**Q36 The square root of the sum of deviations of a set of numbers from their arithmetic mean is**

- ☐ zero
- ☐ standard deviation
- ☐ minimum
- ☐ maximum

**Q37 A set of data with only one mode is said to be**

- ☐ unimodal
- ☐ uniquemodal
- ☐ singlemodal
- ☐ unimodal

**Q38 What is the sum of the medians of {3, 4, 4, 5, 6, 8, 8, 10} and {5, 5, 7, 9, 11, 12, 15, 18}**

- ☐ 15.5
- ☐ 10.5
- ☐ 19.5
- ☐ 25.5

**Q39 \_\_\_\_\_ statistics deals with methods of organizing, summarizing and presenting data in an informative way**

- ☐ Descriptive
- ☐ Inferential
- ☐ Frequency
- ☐ Inductive

**Q40 If at least one of the events of an experiment can occur, then they are said to be \_\_\_\_ events**

- ☐ collectively exhaustive

- ☐ independent
- ☒ mutually exclusive
- ☐ dependent