

Sample Exam 1

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) A study in Yosemite National Forest is attempting to determine what factors aid a tree in reaching heights greater than 60 feet (adult pine trees). It is estimated that the forest contains 25,000 adult American pines. The study involves collecting heights from 250 randomly selected adult American pine trees and analyzing the results. Identify the population of the study.
 - A) all the adult American pine trees taller than 60 feet
 - B) the 25,000 adult American pine trees in the forest
 - C) all American pine trees, of any age, in the forest
 - D) the 250 randomly selected adult American pine trees

- 2) Number of e-mail received in a week is an example of a _____ variable.
 - A) discrete
 - B) continuous

- 3) Indicate the measurement scale of the following variable: Soft drink size (small, medium, large)
 - A) interval
 - B) ratio
 - C) nominal
 - D) ordinal

A survey was conducted to determine how people rated the quality of programming available on television. Respondents were asked to rate the overall quality from 0 (no quality at all) to 100 (extremely good quality). The stem-and-leaf display of the data is shown below.

Stem	Leaves
3	24
4	03478999
5	0112345
6	12566
7	01
8	
9	2

- 4) what percentage of the respondents rated overall television quality with a rating of 80 or above?
 - A) 96
 - B) 100
 - C) 0
 - D) 4

- 5) Suppose you believe that the probability that you will get an A in Statistics is 0.9 and the probability that you will get an A in Marketing is 0.7. If these events are independent, what is the probability that you will get an A in both Statistics and Marketing?
 - A) 0.90
 - B) 0.70
 - C) 0.63
 - D) .85

- 6) According to the empirical rule, if the data form a "bell-shaped" normal distribution, _____ percent of the observations will be contained within 3 standard deviations around the mean.
 - A) 99.70
 - B) 93.75
 - C) 68.26
 - D) 95.44

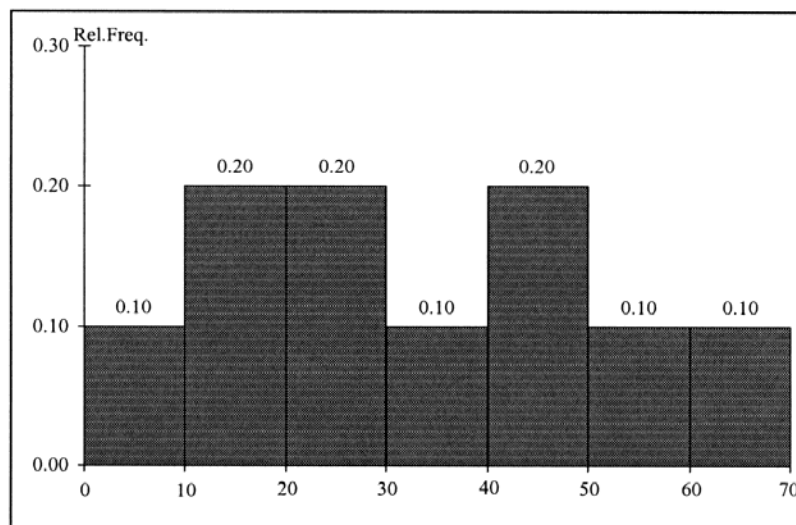
- 7) Suppose that past history shows that 50% of college students prefer Brand C cola. A sample of 6 students is to be selected. The probability that at least 1 prefers brand C is _____.
 - A) 0.016
 - B) 0.984
 - C) 0.094
 - D) 0.500

- 8) Suppose that past history shows that 50% of college students prefer Brand C cola. A sample of 8 students is to be selected. The average number that you would expect to prefer brand C is _____.
 - A) 10
 - B) 3
 - C) 4
 - D) 7
 - E) None

Question 9–13: Given a data set: (n=6): 7, 4, 9, 0, 7, 3

- 9) Find the mean of the data set
 A) 7 B) 5 C) 2 D) 1 E) 3
- 10) Find the mode of the data set.
 A) 7 B) 5 C) 5.5 D) 0
- 11) Find the standard deviation of the data set
 A) 10.8 B) 4 C) 3.29 D) 5 E) none
- 12) The five-number summary of the data set consists of _____, _____, _____, _____, and _____.
 A) 0, 2.25, 5.5, 7.5, 9 B) 0, 1.75, 3.5, 5.25, 9 C) 0, 1.5, 3, 4.5, 9 D) 0, 3, 5.5, 7, 9
- 13) Based on the five-number summary, what type of shape does the distribution of the sample appear to have?
 A) Symmetrical B) Right-skewed. C) bell-shaped D) Left-skewed.

The histogram below represents scores achieved by 200 job applicants on a personality profile.



- 14) Referring to the histogram, _____ percent of the job applicants scored between 10 and 20.
 A) 80% B) 30% C) 50% D) 20%
- 15) Referring to the histogram, _____ percent of the job applicants scored below 60.
 A) 90% B) 80% C) 60% D) 10%
- 16) It is estimated that the internet game times to completion follow a normal distribution with mean 150 minutes and standard deviation 10 minutes, find the probability that the game time is less than 170 minutes.
 A) 0.0228 B) 0.9970 C) 0.5000 D) 0.9772
- 17) It is estimated that the internet game times to completion follow a normal distribution with mean 150 minutes and standard deviation 10 minutes, find the probability that the game time is between 135 and 155 minutes.
 A) 0.5000 B) 0.6915 C) 0.6247 D) 0.0668

Answer Key

Testname: SAMPLETEST_1.TST

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) B
- 2) A
- 3) D
- 4) D
- 5) C
- 6) A
- 7) B
- 8) C
- 9) B
- 10) A
- 11) C
- 12) A
- 13) D
- 14) D
- 15) A
- 16) D
- 17) C
- 18) A
- 19) C
- 20) D
- 21) B
- 22) C
- 23) B