

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

The administration of a large university is interested in learning about the types of wellness programs that would interest its employees. To do this, they plan to survey a sample of their employees.

- 1) Suppose that the university randomly selects a school (e.g., the Business School) and surveys all of the individuals (administration, faculty, professional staff, clerical and maintenance) who work in that school.

This sampling plan is called

- A) Systematic sampling
- B) Stratified sampling
- C) Cluster sampling
- ~~D) Simple random sampling~~
- ~~E) Convenience sampling~~

- 2) Suppose that there are five categories of employees (administration, faculty, professional staff, clerical and maintenance) and the university decides to randomly select ten individuals from each category. This sampling plan is called

- A) Stratified sampling
- B) Cluster sampling
- C) Simple random sampling
- D) Convenience sampling
- E) Systematic sampling

ASW, a regional shoe chain, has recently launched an online store. Sales via the Internet have been sluggish compared to their brick and mortar stores, and management suspects that its regular customers have concerns regarding the security of online transactions. To determine if this is the case, management plans to survey a sample of regular customers.

- ~~3) Suppose that ASW has an alphabetized list of regular customers who belong to their rewards program. After randomly selecting a customer on the list, every 25th customer from that point on is chosen to be in the sample. This sampling plan is called~~

- A) Simple random sampling
- B) Convenience sampling
- C) Cluster sampling
- D) Systematic sampling
- E) Stratified sampling

- 4) One member of the management team at ASW suggests that the survey could be conducted online. Customers logging on to the online store would be asked to take a few minutes to complete the survey and would be offered a coupon as incentive to participate. Which of the following statements is true?

- I. This is a voluntary response sample.
- ~~- II. This would result in an unbiased random sample.~~
- III. This would result in a biased sample.

- A) II only B) III only C) I and II D) I only E) I and III

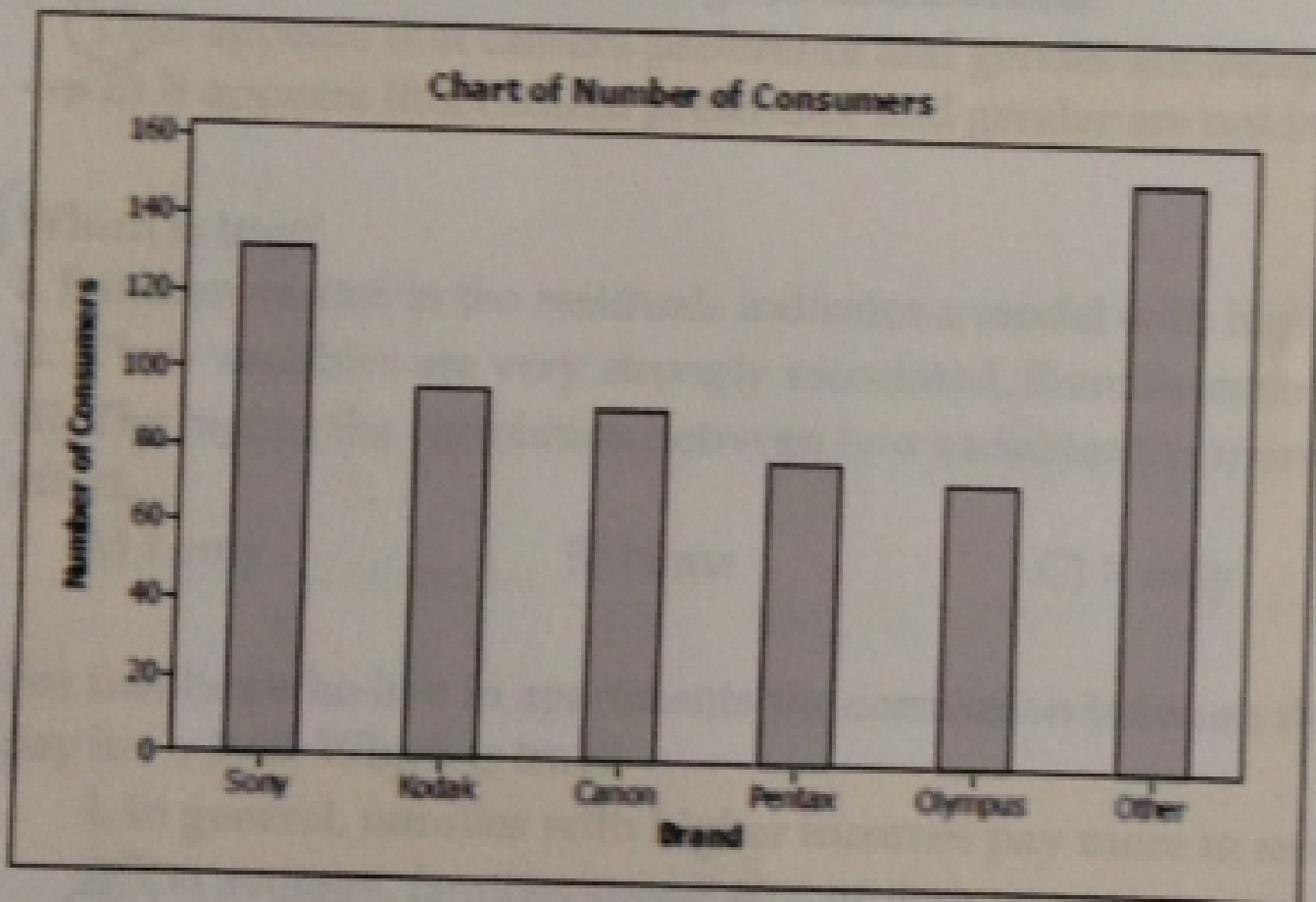
- ~~5) Suppose that ASW's regular customers belong to a rewards program and have a customer rewards ID number. ASW decides to randomly select 100 numbers. This sampling plan is called~~

- A) Convenience sampling
- B) Cluster sampling
- C) Stratified sampling
- D) Systematic sampling
- E) Simple random sampling

A large national retailer of electronics conducted a survey to determine consumer preferences for various brands of digital cameras. The table summarizes responses by brand and gender.

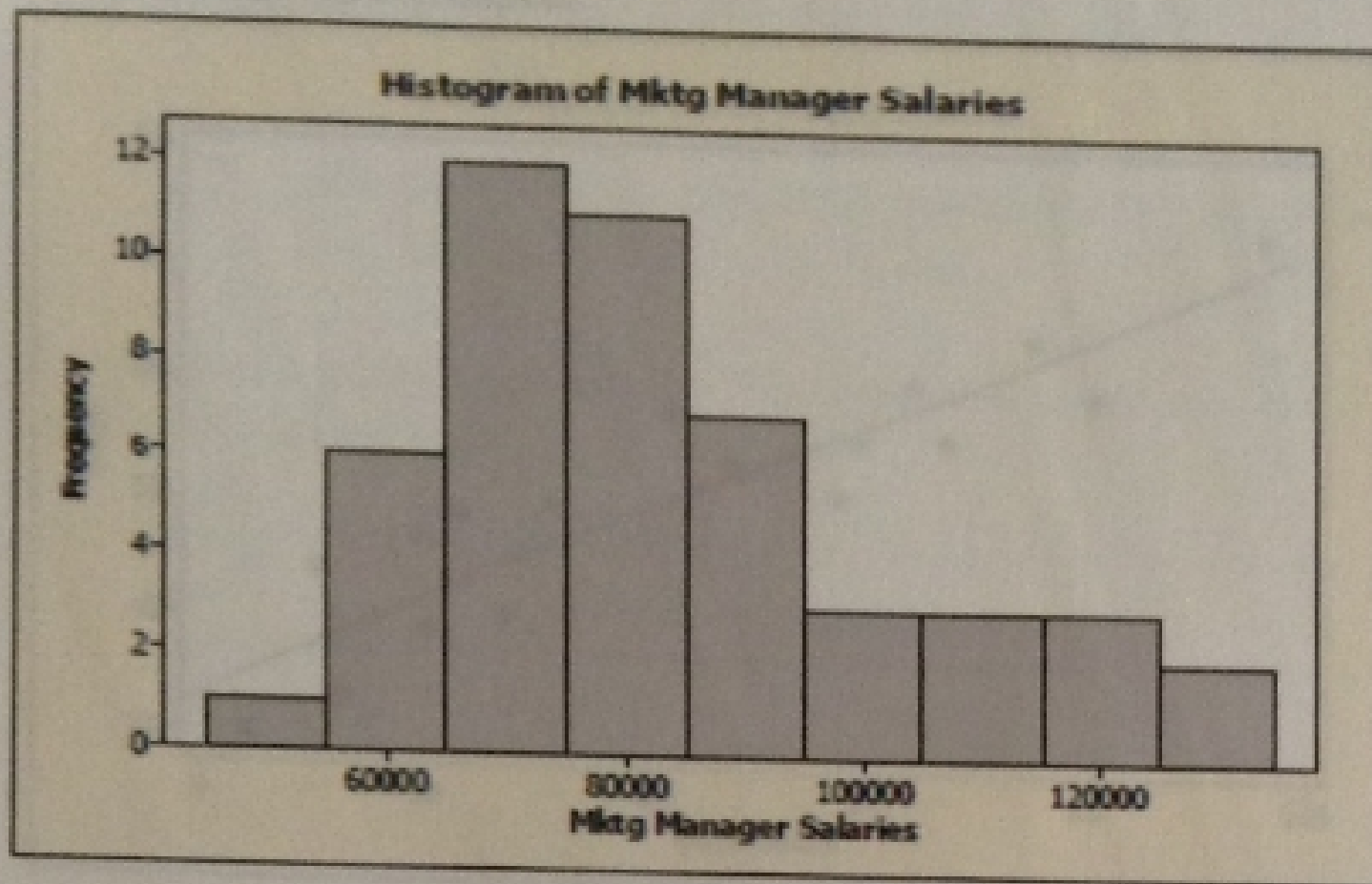
	Female	Male	Total
Sony Cyber-Shot	73	59	132
Kodak - Easy Share	49	47	96
Canon Power Shot	58	33	91
Pentax	37	41	78
Olympus	45	28	73
Other Brands	86	67	153
Total	348	275	623

- 6) The percentage of consumers who are male and prefer Pentax is
 A) 6.6% B) 44.1% C) 52.6% D) 12.5% E) 14.9% $\frac{41}{623}$
- 7) Of the consumers who are male, the percentage who prefer Pentax is
 A) 52.6% B) 12.5% C) 6.6% D) 44.1% E) 14.9% $\frac{41}{275}$
- 8) The following bar chart for these data shows



- A) the marginal distribution of gender.
 B) the conditional distribution of gender.
 C) the conditional distribution of brands.
 D) the marginal distribution of brands.
 E) None of the above

Following are a histogram and the five number salary for salaries (in \$) for a sample of U.S. marketing managers.



Min	Q1	Median	Q3	Max
46360	69693	77020	91750	129420

12) The shape of the distribution is

- A) symmetrical.
- B) bimodal.
- C) left skewed.
- D) normal.
- E) right skewed.

E

~~13) The most appropriate measure of central tendency for these data is the~~

- A) median.
- ~~B) standard deviation.~~
- ~~C) range.~~
- D) mean.
- ~~E) mode.~~

Skewed means use median!

D

14) The IQR for these data is

- A) \$14,566.
- B) \$22,057.
- C) \$77,020.
- D) \$83,060.
- E) \$69,693.

B

~~15) Suppose the marketing manager who was earning \$129,420 got a raise and is now earning \$140,000. Which of the following statement is true?~~

- I. The mean would increase.
 - ~~II. The median would increase.~~
 - III. The range would increase.
- A) I and III B) I only

median won't change

- C) I, II and III
- D) II only
- E) III only

C