View hints View feedback

Play All

QUESTION 1

Choose the correct answer.

In a certain country, this question is asked on a national online survey.
Do you think the government should develop its slow online services?

Which best describes this question on the survey?

- This question is biased because some people may not be interested in responding to the survey.
- The question does not contain bias, as people would probably have made up their minds on how to reply to this question no matter how it was worded.
- This question does not contain any bias.
- This question is biased because it is extremely possible that people will respond a certain way because of the word "slow" ✓

QUESTION 2

A research company wants to know if the local shopping mall should be open late during the week, on the weekend, or not open late. This is the question they decided to use in a survey for

people shopping at the mall.
"What are your shopping habits?"

After the first day of data collection, they determined that this was not a good question and decided to make a change.
Which questions should they use instead? Select all that apply.

- [ ] Is there a day of the week that you do not shop?
- [ ] Do you like to shop?
- [x] What day and time do you prefer to shop at the mall?
- [x] If you could choose a day and time to shop at the mall, when would it be?
- [ ] When you shop, do you prefer for the mall to have all of its stores open?
- [ ] Would you be happy if the mall changed the hours it is open?

QUESTION 3

Select the correct answer from the drop-down menu.
An electronics store wants to sell warranty policies for the items they sell.

Here are the questions that they are considering.
Question 1: Do you usually purchase warranty plans along with your purchases?
Question 2: Why do you not purchase a warranty plan for your electronics?

Question 3: If you were to purchase a warranty plan, would you prefer it to be a flat fee or a percentage of the value of the item?
Question 4: Have you ever had to use a warranty plan you purchased?

The best question to use would be Question 3 ✓ ✓.

QUESTION 4

Drag and drop the correct answer into the spaces provided.

A gaming company has an online survey asking its subscribers to try the sample segments of three possible new video games and give feedback on their experience.

Which statement explains the reason for the survey?
Reason A: They just want to see if the company has a lot of subscribers.
Reason B: They want to see how much time their subscribers spend online.
Reason C: They want to know which game should be developed.
Reason D: They want to know if it is worthwhile asking their subscribers to take online surveys.

The outcome of this survey is Reason C ✓.

B D A

QUESTION 5

Fill in the blanks with the correct answer.

New potting soil is being developed by a company. The company designs a study to gather data on the effectiveness of the new soil. It sends participants two seedlings, one with the new soil (labeled as A) and the other with their old potting soil (labeled B). The participants are asked to add the same amount of water to each plant and to keep them in the same area to be sure that they both get the same amount of light. Of the following possible questions, which is the best to ask?

Question 1: Did you find a difference in the way the soil in each pot absorbed water?
Question 2: Did you find a difference in the total growth of the seedlings?
Question 3: Was it easier to plant the seedlings in pot A or pot B?
Question 4: Do you think that the soil is an important feature in how seedlings grow?

Of the following possible questions, the best question to ask is Question

2 ✓.

QUESTION 6

Drag and drop the correct answer into the spaces provided.

Students at a school have been asked to state their favorite type of music by a research group interested in changing the format of a local radio station. The population for this study is

all people in the area who listen to the radio ✓.

all students at the school

all students that like music

all people that listen to music

QUESTION 7

Drag and drop the correct answer into the spaces provided.

Consider this question presented in a study. Which channels on your television do you spend the greatest amount of time watching?

This question [has no bias because it does not mention specific channels ✓].

- contains bias because not everyone watches television
- has no bias because everyone watches television
- contains bias because it does not mention specific channels

QUESTION 8

Choose the correct answer.

Which is the best method to collect data to determine whether or not kids use the new features of a water park that were recently installed?

- ○ a survey
- ✓ an observational study

- an experiment
- a census

QUESTION 9

Choose the correct answer.

Which is the best statement for a study to determine if a new burn medication is more effective than a company's old formulation?

- an observational study to look at how people would apply a burn medication to ensure it is being applied properly
- a census, as all people in a population should be allowed to reply to a survey on burn medication
- an experiment involving people who use the medication, where one group is given the old medication and a second group is given the new formulation ✓
- a survey sent to people who have never used a burn medication so that they are not biased to one type of medication

QUESTION 10

QUESTION 10

Choose the correct answer.

The office at a local school needs to collect information from its students. To do this, they create a questionnaire that all students are required to complete and submit. Which statement best describes this statistical study?

- This is a census for all the students in the school to answer the questions on the questionnaire. ✓
- This is an experiment designed to see if all students will reply to the questionnaire.
- This is an observational study, as the office will observe the responses the students have on the questionnaire.
- This is a survey of the students, as they are being asked to answer a series of questions.

QUESTION 11

Choose the correct answer.

A recreational club is interested in determining the types of activities they should offer this year to satisfy their members and attract new members in the community. To do this, they decide to perform a study. Which statement best describes what should be done?

- A census should be used and given to all the members of the club, as all the members must have input to this decision.

A survey should be used and given to members and nonmembers in the community, with questions that identify the interests of the participants. ✓

An observational study needs to be used so that researchers can watch from a distance to see what people like to do.

An experiment is needed to test what people like to do.

QUESTION 12

Select the correct answer from the drop-down menu.

A group of participants who read mystery books has been given a book to read by the same mystery book author (the book does not have the author's name so they do not know who wrote it). Once they are all finished, half of the group is given a second book by the same author to read, while the other half of the participants are given a book to read by a different mystery book author. Again, the books do not contain the authors' names and they do not know who wrote it or that they are the same or different authors. The participants then give their opinions about both books.

Select your answer from the drop-down menu.

This is an example of a statistical study called [an experiment ✓] .

QUESTION 13

Select the correct answer from the drop-down menu.

In identifying the health benefits of a new skin cream, the data is best collected using

an experiment ✓ .

QUESTION 14

Select the correct answer from the drop-down menu.

Data is needed on a new type of glass for greenhouses. Data collection is best done by testing the new glass using

an experiment ✓ so that a control group and

an experimental group ✓ can be compared.

QUESTION 15

Select the correct answers from the drop-down menu.

A new type of plant pot is being designed to allow plants to be watered evenly. To determine how effective this plant pot is, the best study would be

an experiment ✓, where two groups can be created. Half the group of plants would be planted in the old pot style and the other half planted in the new pot. The plants in the old pots make up the

control group ✓ and the plants in the new pots make up the experimental group ✓

.

QUESTION 16

Fill in the blanks with the correct answer.

A research team has been hired by the local shopping center to see if people would prefer if shopping hours were to be extended at the center. They station a member of the team at each entrance and ask people entering the shopping center a series of questions.

Study 1: a survey
Study 2: an observational study
Study 3: an experiment
Study 4: a census

Enter your answer in the space provided. Enter only the number of the study.

The process of data collection used here is Study 1 ✓.

QUESTION 17

Fill in the blank with the correct answer.

A research company wanted to collect information on whether cyclists wanting to purchase a new bicycle would prefer a mountain bike or a street bike. Which type of study should the research company conduct?

Study 1: a census
Study 2: a survey
Study 3: an experiment
Study 4: an observational study

Enter your answer in the space provided. Just answer with the number of the study.

The best type of study for this situation is Study 2 ✓.

QUESTION 18

Drag and drop the correct answer into the space provided.

It was determined that in collecting data for a statistical study, the best approach would be to watch people using a variety of new product items to see which is preferred.

This type of study is an observational study ✓.

a census | an experiment | a survey

QUESTION 19

In an effort to determine how to improve the experience of passengers on a cruise, a cruise company decides to collect data from people who have cruised with their company.

Which statements best describe what study should be done and why that study type is effective in this situation? Select all that apply.

- [ ] An experiment needs to be conducted.
- [ ] Splitting a cruise ship population into two groups and offering different features to these two groups will be an effective data-collection process.
- [ ] All people that would consider cruising would have insight about what needs to be improved on a cruise ship.
- [ ] An observational study needs to be conducted.
- [ ] A survey needs to be conducted. ✓
- [ ] People that have cruised with the company in the past have a knowledge of what is effective and what needs to be improved on the cruise line. ✓

QUESTION 20

Drag and drop the correct answer into the space provided.

To determine if people who exercise prefer water or sports drinks during excercising, an observational study should be used at a local gym where data is collected from a distance to not affect the data collection.

an experiment | in a questionnaire | using control and experimental groups | a survey

QUESTION 21

Drag and drop the correct answer into the space provided.

When determining if a new pet food is going to be successful, the best type of study to collect the needed data would be an observational study.

a census | an experiment | a survey

QUESTION 22

Drag and drop the correct answer into the space provided.

A clothing company is interested in determining whether shoppers would purchase shirts that are machine washed only or would also purchase shirts that must be dry cleaned.

The best study to obtain this information would be a survey ✓.

an experiment | an observational study | a census

QUESTION 23

Select the correct answer from the drop-down menu.

A survey is given to participants in a study for the local library. This is the question on the survey.

Which type of novel do you like to read?
Science Fiction
Mysteries
Romance
Thrillers

This question contains bias because only some types are listed ✓ ⌄.

QUESTION 24

Select the correct answer from the drop-down menu.

To determine the opinions of students at a certain school on the topic of the school motto, a survey was sent to 100 of the 1,000 students at the school.

The population for this survey is the 1,000 students.

QUESTION 25

Which choices below represent survey questions that are not biased? Select all that apply.

- [ ] Do you believe that meals that include animal-based proteins are unhealthy?
- [x] Should new options be made available in the school lunch room?
- [ ] Why do you think that school lunch rooms offer meals that are lacking in nutritional needs of children?
- [x] Which foods do you prefer to see offered in the school lunch room?
- [ ] Should all students refuse to purchase food from the school lunch room?

- [ ] Should the school lunch room dramatically reduce its high costs for lunch options?

QUESTION 26

On a local farm that grows figs, the farmer decides to try a new type of fertilizer. To do this, he splits his fig trees into two groups: one group getting the fertilizer he normally uses and the other group getting the new fertilizer.

Which statements about this study are true? Select all that apply.

- [ ] The objective of the study is to show the old fertilizer is less expensive.
- [ ] The population is the fig trees getting the old fertilizer.
- [ ] The population is the fig trees getting the new fertilizer.
- [ ] The population is all of the farmer's fig trees. ✓
- [ ] The objective of the study is to determine if the new fertilizer is more effective in terms of fig production. ✓

- [ ] The objective of the study is to show the fertilizer is environmentally safe.

QUESTION 27

Choose the correct answer.

A newspaper asks readers to respond to the following question.

Which section of our paper are you least likely to read?
Classified Ads
Sports
Entertainment
Business

Which statement best describes why this question contains bias?

- ( ) The question is posed only to those that read their paper, not the entire newspaper-reading population.
- [x] Not all options of sections in the paper are listed, which means some participants might choose one of these without it being their true response. ✓
- ( ) The question does not ask participants which sections they enjoy reading.
- ( ) The question does not ask for the reason why.

QUESTION 28

Choose the correct answer.

A survey is designed to collect information at the school library. The librarian will use the results to design a new display at the entrance of the library.

The question asked as people enter the library is:
What are the top 5 reasons you visit the library?

Which is the correct objective of this survey?

- The objective is to determine what sorts of new books the librarian should purchase.
- The objective is to determine the types of books the librarian can put into storage.
- The objective is to determine what should be included in the new display at the entrance of the library. ✓
- The objective is to encourage students to use the library.

QUESTION 29

Choose the correct answer.

The following question was initially included in a survey given by a body wash company as part of a marketing strategy for a new calming fragrance shower gel. This gel is supposed to help

people fall asleep.
“Do you always shower before you go to bed at night?”

It was determined that this question was a poor survey question. Which is the best replacement question for the purposes of this study?

- [x] How many nights per week do you shower before you go to bed?
- [ ] When you shower in the evening, how long of a shower do you take?
- [ ] Do you prefer to shower in the morning?
- [ ] When you shower, do you use a shower gel?

QUESTION 30

Choose the correct answer.

In a study to determine if taxes should be increased by a small amount to help pay for a new community swimming pool, the city website asked people to reply to this question.
"Would you be in favor of a tax increase if it was used for something good?"

Since this is not a great question, which question should the city have used?

- [ ] If a new pool was built in your community, would you use it?

- Do you think building a new swimming pool in your community is a good idea?
- Would you be in favor of a small tax increase for a new community swimming pool? ✓
- Do you think that your community needs a new swimming pool?