Identifying Random and Bias Data Samples - Guided Lesson Explanation

Explanation#1

Forms of sampling:

Simple Random sampling – Looks at the population as whole and randomly selects from the population with no criteria.

Stratified Sampling – The population is first broken into subsets based on one common characteristic. The members of subsets ate selected at random such as people with same gender being chosen randomly.

Convenience sampling – This method of sampling is where subjects are chosen because it is convenient. E.g. taking a poll on the ground floor of a multistoried building and excluding the floors of the building that you do not have access to.

Systematic Sampling – A sample that is being chosen by a fixed nth record from the total population. e.g. Every 4th or 10th candidate of the sample.

Voluntary Response – This is where group members that are sampled chose themselves. It entirely depends on the will of the participants.

The students are first chosen by characteristic and randomly sampled. This is classic stratified sample letter B.

Since the University has not provided us with any guidelines for the survey, the most random sample possible should be the most valid survey form. I would advise them to use Simple Random Sampling.

Explanation#2

An unbiased question would be worded so that is does not influence the person answering the question. The question should be open and not provide any condition. Of the three choices letter C exhibits the least amount of bias.

Explanation#3

The answer choice c contains some bias. The use of different mediums can influence a person's thought process based on their experience.