

NCERT Solution for Class 11 Statistics for chapter 1 Introduction

Exercises

Question 1. Mark the following statements as true or false.

- (i) **Statistics can only deal with Quantitative data.**
- (ii) **Statistics solve economic problems.**
- (iii) **Statistics is of no use to Economics without Data.**

Answer: (i) False;

Reason: By statistic we mean both qualitative and quantitative facts that are used in economics. Statistics reveals both quantitative and qualitative aspects of data. For example: the statement "Literacy rate in India has gone up from 65.38% in 2001 to 74.4% in 2011" is a quantitative fact. But the chief characteristic of such information is that it describes the attributes of a group of people this is qualitative information which is often used in economics and other social sciences.

(ii) True;

Reason: Statistics is an indispensable tool for economists that help them in understanding economic problems. Economists use various methods of statistics, to find out the causes behind economic problems, with help of qualitative and quantitative facts relating to economic problems. After identifying the causes of the problem, it becomes easier to formulate policies to tackle it.

(iii) True;

Reason: Data help economists to present economic facts in a proper and definite form that further helps in proper understanding of what is stated. When economic facts are stated in statistical terms or in form of data, they become more exact and more convincing than vague statement hence we can say that statistics is of no use to economics without data.

Question 2. Make a list of activities you find in a bus stand or a market place. How many of them are economic activities?

Answer: The list of activities we observe at a bus stand or in a market place is as follows:

- Buying of goods
- Selling of goods
- People rendering different kind of services such as: rickshaw puller taking people from place to place, waiter working at a nearby eating joint, etc.
- Production process carried out by some producers.

Above mentioned all activities are economic activities because they all are undertaken for a monetary gain. All these activities involve the use of scarce resources to carry out the task of production, consumption and distribution.

Question 3. The government and policy makers use statistical data to formulate suitable policies of economic development. Illustrate with two examples.

Answer: Statistics is used in finding relationships between different economic factors using data and verifies them. Statistical data and tools are used in predictions of future trends. Hence, statistical data is of key importance to the government and policy makers in formulating suitable policies of economic development.

For example: An economic planner might be interested in knowing the impact of today's investment on national income in future. To carry on such an exercise economic planner needs to acquire proper knowledge of statistics and appropriate statistical data.

Other examples: Ministry of Finance requires statistical data of revenue and expenditure to prepare annual budget of the country.

Banking organisations also need statistical data for fixing interest rates, advancement of loans and formation of credit policy.

Question 4. "You have unlimited wants and limited resources to satisfy them". Explain this statement by giving two examples.

Answer: The statement "You have unlimited wants and limited resources to satisfy them" refers to a universal problem of decision making or problem of choice arising at all levels of the economy due to scarcity of resources. Problem of choice arises due to unlimited human wants, scarcity of resources and alternative uses of resources.

The basic concern of an economy and also of an individual is to allocate the available scarce resources to the best possible use confronted with unlimited wants. An economy as well as individual has to make a choice between various ways of allocating the available scarce resources according to his/her priority.

For example: An individual with ₹ 10,000 has to choose between buying a new T.V. set and paying tuition fee of his/her child according to his/her priority.

Similarly, an economy endowed with a given level of resources has to choose between the production of civil goods (sugar, rice, cycles etc.) or defence/military goods (guns, bombs, tanks etc.) depending upon the need of the economy.

Question 5. How will you choose the wants to be satisfied?

Answer: An individual's choice of fulfilling a want depends upon the need of the hour, level of satisfaction and priority attached to the wants. An individual will fulfill those wants first which are on his top priority and yield him/her the highest satisfaction. His/her decision to satisfy a particular want is also guided by the need of the hour, the availability of good he/she want and availability of the resources(money) to acquire the want.

Question 6. What are your reasons for studying Economics?

Answer: The need to study economics evolve from the basic problem of scarcity and choice that everyone has to face. Economics is the study of how people use available scarce resources to meet their needs. It deals with choices and the impact of these choices on each other. Economics involve the study of human beings engaged in various economic activities.

The following are the reasons that make the study of economics certain:

- The study of consumption: Economics deals with the study of consumer behavior in different market. The study of consumption is concerned with how a rational consumer decides, given his income and many alternative goods to choose from, what to buy when he knows the prices.
- The study of production: It deals with how the producer chooses what to produce for market when he knows the costs and prices.
- The study of distribution: Economics is also studied to know how the national income or the total income arising of what has been produced in the country is distributed through wages, rent, interest and profits.
- To study basic macroeconomics problems in an economy: Economics also helps us to understand the basic economic problems faced by an economy like unemployment, poverty, etc. and also the underlined causes behind them so that effective and appropriate measures can be taken to correct them.

Question 7. Statistical methods are no substitute for the common sense. Comment with examples from your daily life.

Answer: By the statement "Statistical methods are no substitute for the common sense" we mean that statistical data should not be believed upon blindly as it can be misused and misinterpreted. Statistical data can be deliberately manipulated. Statistic may prove the wrong as right. Statistical laws are probabilistic in nature. Results based on statistics are only approximate and not exact. Lack of knowledge or inculcation of adverse opinions may lead to misuse of statistical facts.

For example: In a glass manufacturing company, profits earned during five consecutive years are ₹ 5000, ₹ 4000, ₹ 3000, ₹ 2000, and ₹ 1000 respectively on the other hand in a plastic manufacturing company, profits earned during five consecutive years are ₹ 1000, ₹ 2000, ₹ 3000, ₹ 4000, and ₹ 5000 respectively. Thus both companies have made same average profit i.e. ₹ 3000. On the basis of this average (statistical data) one may conclude that both companies have faced same economics conditions. But it would be wrong. As one can clearly see that plastic manufacturing company is progressing and the glass manufacturing company is on decline.