

Chapter 1: Introduction

NCERT · Class 11 · Statistics

Textbook exercises

Question 1

Mark the following statements as true or false. (i) Statistics can only deal with quantitative data. (ii) Statistics solves economic problems. (iii) Statistics is of no use to Economics without data.

Solution

ANSWER **(i) False.** Statistics deals with both quantitative data (measurable facts such as prices, incomes and output) and qualitative data (attributes such as gender, health or skill level that are recorded and stored systematically). So it is not limited to quantitative data alone. **(ii) False.** Statistics by itself does not solve economic problems. It helps an economist *understand* and *analyse* a problem and find the causes behind it, so that suitable policies can be framed; the actual solution comes from policies and actions, not from statistics directly. **(iii) True.** Statistics works on data. No analysis of an economic problem is possible without data on the various factors underlying it, and no policy can be formulated without such analysis. Hence statistics is of no use to economics without data.

Question 2

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

Solution

ANSWER An **economic activity** is one undertaken for monetary (economic) gain; a non-economic activity is done out of love, duty or sympathy, without expecting payment. A sample list from a bus stand / market place is shown below. (*This is an observation activity, so your own list is accepted, provided you classify each activity correctly.*)

Activity observed	Economic / Non-economic
A conductor collecting bus fares	Economic (he is paid)
A shopkeeper selling vegetables or fruit	Economic (sells for profit)
A porter/coolie carrying luggage for money	Economic (paid for the service)

A tea/snack vendor serving customers	Economic (sells for profit)
A taxi or auto driver carrying passengers	Economic (paid fare)
A customer buying goods for personal use	Economic (consumption activity)
A person helping an elderly traveller cross the road	Non-economic (done out of kindness)
A child playing while waiting for the bus	Non-economic (no monetary gain)
A friend giving directions to a stranger	Non-economic (no payment)

In this sample list of 9 activities, **6 are economic activities** (those undertaken for monetary gain) and 3 are non-economic. The exact count will depend on the activities you actually observe.

Question 3

‘The Government and policy makers use statistical data to formulate suitable policies of economic development’. Illustrate with two examples.

Solution

ANSWER The government and policy makers rely on statistical data to know the facts about an economic problem, measure its size, and then design policies to deal with it. Two examples: **Example 1 — Poverty and welfare:** Statistical data on how many people are poor, how income is distributed, and how many are illiterate or unemployed help the government decide how much to spend on welfare schemes, food subsidies, employment guarantee programmes and education, and which regions need them most. **Example 2 — Production and imports:** Data on past and present consumption and domestic production help planners predict future demand. For instance, statistics on the expected domestic production of oil and the likely demand for it help the government decide how much oil India should import in a given year, and similar data help fix targets for foodgrain production and prices. In both cases, exact statistical figures make the policy decisions reliable, whereas vague statements would not.

Question 4

“You have unlimited wants and limited resources to satisfy them.” Explain this statement by giving two examples.

Solution

ANSWER Human wants are endless — as soon as one want is satisfied, a new one appears — but the resources (money, time, goods) available to satisfy them are limited. Because of this gap, we cannot satisfy all our wants and must choose. Two examples: **Example 1 — Pocket money:** A student may want many things — books, snacks, a video game, clothes — but the pocket money he or she gets is limited. So the student can buy only the things wanted the most and has to leave the rest. This is a basic teaching of economics. **Example 2 — Land and resources:** The land, labour, water and fertiliser available to farmers at any time are limited and have alternative uses — the same resources can grow food crops or non-food crops such as cotton and jute. Since they cannot do everything at once, a choice has to be made about what to produce. Thus the conflict between unlimited wants and limited resources gives rise to the problem of choice, which is the central concern of economics.

Question 5

How will you choose the wants to be satisfied?

Solution

ANSWER Since our wants are unlimited but our resources (income) are limited, we cannot satisfy every want and must **choose**. We do this by **ranking our wants in order of importance (priority)** and satisfying the most urgent and important ones first. Given our income and the current prices of goods, we decide which things, and in what quantities, to buy so as to get the maximum satisfaction. The most pressing wants (such as food, study material or essential needs) are met first, and less important wants are postponed or given up. For example, with limited pocket money a student first buys the textbooks and stationery needed for studies, and only then spends on snacks or entertainment if money is left. In this way, we choose the wants to be satisfied on the basis of their urgency, importance and the resources available.

Question 6

What are your reasons for studying Economics?

Solution

ANSWER (*Answers may vary; a model answer is given.*) I study economics for the following reasons: 1. To understand the **ordinary business of life** — how people earn, spend, save and make choices as consumers, producers and earners. 2. To learn how to deal with the basic problem of **scarcity and choice** — how to satisfy unlimited wants with limited resources, and to manage my own money and

resources better. 3. To understand the working of the economy — how **consumption, production and distribution** take place and how national income is shared as wages, profits, rent and interest. 4. To understand and find solutions to social and economic problems such as **poverty, unemployment, inequality and rising prices**, so that I can appreciate why the government frames particular policies. 5. To acquire the skills of collecting, presenting and analysing data, which are useful in jobs and in making informed decisions in everyday life.

Question 7

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

Solution

ANSWER Statistics is a powerful tool, but it must be used together with common sense and proper judgement; otherwise statistical results can be **misused** and lead to wrong conclusions. The textbook's own example makes this clear: a man knew the *average* depth of a river and the *average* height of his family. Since the average height was greater than the average depth, he thought the family could cross safely — but some members drowned, because an average hides the variation (the river was deeper at some points and some family members were shorter). The fault lay not with the method of calculating the average but with its **misuse**. **Example 1 from daily life:** If the average marks of a class are high, it does not mean every student has done well — a few very high scorers can pull up the average while many students still fail. Common sense tells us to also look at how the marks are spread. **Example 2 from daily life:** The average income of a locality may be high, yet many families there may be poor if a few very rich families raise the average. Treating everyone as well-off because of a high average would be a mistake. Thus, statistical methods help us summarise and analyse facts, but they must be interpreted sensibly. Used carelessly they can mislead, which is why they are no substitute for common sense.
