

## Questions & Answers about Chapter 1: Introduction to Economics

### 1. Explain the problem of scarcity and choice using an example of a farmer.

Scarcity arises because resources are **limited and scarce**. The resources which the producers have are limited and also have alternative uses. For example, resources in agriculture like **land, labour, water, fertiliser, etc., are given**. The same resources can be used in the production of **food crops or non-food crops** such as rubber, cotton, jute etc. This alternative use gives rise to the **problem of choice**.

### 2. Describe the three conventional divisions of the study of Economics.

Economics is often discussed in three parts: **consumption, production, and distribution**. **Consumption** is the study of how the consumer decides what to buy, given their income. **Production** is the study of how the producer chooses what and how to produce for the market. **Distribution** is the study of how the national income (GDP) is distributed through wages (and salaries), profits and interest.

### 3. Briefly explain the sequential steps involved in the statistical process for economic data.

The study of statistics involves collection of data. The next step is to **present the data** in tabular, diagrammatic and graphic forms. The data are then **summarised** by calculating various numerical indices, such as mean, variance, standard deviation. Finally, the data are **analysed and interpreted**.

### 4. How does Statistics help an economist in analyzing economic problems and formulating policies?

Statistics is an **indispensable tool** for an economist that helps him to understand an economic problem. Using its methods, effort is made to find the **causes behind it** with the help of qualitative and quantitative facts. Once the causes of the problem are identified, it is **easier to formulate certain policies** to tackle it.

### 5. How does Statistics help in finding economic relationships and verifying assumptions? Illustrate with one example.

Statistics is often used in **finding relationships between different economic factors**. Economists might be interested in finding out **what happens to the demand for a commodity when its price increases or decreases**. Whether such relationships exist or not can be easily verified by applying statistical methods to their data.

### 6. Explain how statistical tools are vital for economic planning and predicting future trends.

Knowledge of statistics is essential for **predicting the changes in one economic factor due to the changes in another factor**. Formulation of plans and policies requires the knowledge of future trends. For instance, an economic planner must know the **expected level of consumption in 2020** to decide the production plan. This prediction can be done using **statistical tools** based on data of consumption of past years.

### 7. Explain, with a practical example, how Statistics plays a vital role in government decision making.

Statistics plays a vital role in decision making. For example, in the present time of rising global oil prices, it might be necessary to decide **how much oil India should import in 2025**. The decision depends on the **expected domestic production of oil and the likely demand for oil**. Without the use of Statistics, these figures cannot be determined.

**8. Distinguish between Quantitative and Qualitative data, giving relevant examples from the source text.**

**Quantitative Data:** Most Economics data are quantitative. They are measured numerically. Example: "the production of rice in India has increased from **39.58 million tonnes**... to **106.5 million tonnes**". **Qualitative Data:** Describe attributes of a person or a group that **cannot be measured in quantitative terms**. Example: '**gender**' (man/woman) or degree of skill (unskilled/ skilled/ highly skilled).

**9. Why is it necessary for modern economics to include the learning of Statistics? Give two reasons.**

Modern economics has to include some of the basic problems facing the country for special studies, like **measuring poverty, how incomes are distributed, and how environmental disasters affect our lives**. To study these, we need **reliable facts in terms of numbers**. Statistics is the **study of numbers** relating to selected facts in a systematic form, making it necessary for modern economics.

**10. Comment on the statement: "Statistical methods are no substitute for common sense!"**

This statement is a **vital caution**. It is illustrated by the story of the family crossing a river. The father calculated the **average height** of his family and the **average depth** of the river. Since the average height was greater, he thought they could cross safely, but some members (children) drowned. The fault lies with the **misuse of the averages**, not with the statistical method.

**11. Why is scarcity considered the root of all economic problems? Explain this concept with reference to the conflict between unlimited wants and limited resources.**

Scarcity is the root of all economic problems. Had there been no scarcity, there would have been no economic problem, and Economics would not have been studied. Like Aladdin, we have **unlimited wants, but we do not have a magic lamp**. The things that satisfy our wants are **limited in availability**. Since resources are **limited** (or scarce), we have to choose only those things that we want the most. This basic scarcity forces the problem of choice.

**12. Explain the comprehensive definition of Economics used by many modern economists, highlighting the role of resources and distribution.**

The comprehensive definition states that "**Economics is the study of how people and society choose to employ scarce resources that could have alternative uses in order to produce various commodities that satisfy their wants and to distribute them for consumption among various persons and groups in society**". This definition incorporates the core concepts. It emphasizes that resources are **scarce** and have **alternative uses**. Finally, it highlights the importance of the **distribution** of the produced commodities for consumption among various groups.

**13. Statistics is vital in transforming economic facts from vague statements to precise facts. Explain how Statistics achieves this and why precision is important for economists.**

Statistics enables an economist to present economic facts in a **precise and definite form** that helps in **proper comprehension of what is stated**. When economic facts are expressed in **statistical terms, they become exact**. Exact facts are **more convincing than vague statements**. For example, saying with precise figures, **310 people died in the recent earthquake in Kashmir**, is factual statistical data, whereas, saying **hundreds of people died**, is not.

**14. Discuss the necessity of data collection in the context of economic analysis and policy formulation.**

The study of basic problems facing a country requires knowledge of **economic facts**, known as **economic data**. The purpose of collecting this data is to **understand and explain these problems in terms of the various causes behind them**. This process is called analysis. **No analysis of an economic problem would be possible without data** on various factors underlying it. Consequently, **no policies can be formulated to solve it** without analysis and data. Statistical methods help formulate appropriate economic policies that solve economic problems.

**15. Differentiate between Quantitative and Qualitative data in Economics, providing examples for each from the text.**

**Most Economics data are quantitative.** Quantitative data is that which can be measured numerically. An example is the statement: "the **production of rice in India has increased from 39.58 million tonnes... to 106.5 million tonnes**". Economics also uses **qualitative data**. The chief characteristic of qualitative information is that they describe **attributes of a single person or a group of persons that cannot be measured in quantitative terms**. Examples include 'gender' (man/woman) or degree of skill (unskilled/ skilled/ highly skilled).

**16. Explain the function of Statistics in finding and verifying relationships between different economic factors. Use an example to illustrate this.**

Statistics is often used in **finding relationships between different economic factors**. An economist might be interested in finding out **what happens to the demand for a commodity when its price increases or decreases**. Alternatively, they might check if **consumption expenditure increase when the average income increases**. Whether such relationships exist or not can be easily verified by **applying statistical methods to their data**. The economist can also **test whether an assumption she/he made about a relationship is valid or not** only by using statistical techniques.

**17. How does Statistics help in condensing mass data, and why is this function important for an economist?**

Statistics helps in **condensing mass data into a few numerical measures** (such as mean, variance etc.). These numerical measures help to **summarise data**. This function is important because it would be **impossible for you to remember the incomes of all the people in a data if the number of people is very large**. Yet, one can **remember easily a summary figure like the average income** that is obtained statistically. In this way, Statistics summarises and **presents a meaningful overall information** about a mass of data.

**18. Statistics is essential for economic planners in predicting future trends. Explain this role using the example of setting a production target.**

Knowledge of statistics is essential for **predicting the changes in one economic factor due to the changes in another factor**. **Formulation of plans and policies requires the knowledge of future trends**. For example, an economic planner has to decide in 2017 **how much the economy**

should produce in 2020. One must know **what could be the expected level of consumption in 2020** in order to decide the production plan. **Statistical tools** are used to predict this consumption based on the data of consumption of past or recent years.

**19. Explain why modern economics must include the study of basic problems facing the country beyond the conventional divisions of consumption, production, and distribution.**

Besides the three conventional divisions, modern economics has to include some of the **basic problems facing the country for special studies**. Economists want to know facts in terms of numbers that would answer questions about **poverty and disparity in society**. Examples include knowing **how many people in the country are really poor** and **how earning opportunities are related to education**. Knowing the facts about these things is necessary before one can ask for **appropriate actions by the government**. Economists can also look at the costs of **disasters like Tsunami, earthquakes, etc.**, provided they know how to collect and put together the facts systematically and correctly.

**20. List and describe the various economic roles performed by individuals that contribute to the "ordinary business of life."**

The "ordinary business of life" refers to **economic activities** that are undertaken for a **monetary gain**. The roles involved are:

**Consumer:** Buys goods to satisfy their own **personal needs or those of their family**.

**Seller:** Sells goods to **make a profit**.

**Producer:** Produces goods (like a farmer or manufacturing company) or **provide services** (like a doctor or taxi driver).

**Employee:** Works for some other person and **gets paid wages or a salary**.

**Employer:** **Employs somebody, giving them a wage**.

In all these cases, the person is **gainfully employed in an economic activity**.