

Solution

COLLECTION OF DATA WS 1

Class 11 - Economics

Section A

1.
(c) Variables
Explanation: The production of Wheat in different years does not remain the same, because it varies at different points of time, hence it is an example of Variables.
2.
(c) Data collected from some other agency
Explanation: It is Secondary data because the information or data collected is from some other recorded sources or other agencies who have already collected the information through investigation or survey.
3.
(c) Web site
Explanation: Website is not the published source because it is not published with the consent of respective authority.
4.
(d) Both primary and secondary
Explanation: Both primary and secondary
5.
(d) All of these
Explanation: All of these
6.
(c) Finance commission report
Explanation: Union and state governments at times appoint some committees or commissions to make research into any problem such as Finance Commission, Minority Commission, Planning Commission etc. These committees are given a term to probe into the matter. After the expiry of the term, they present the report to the respective authority, which are then published.
7.
(b) Secondary data
Explanation: The organisation's objective of collecting the data may be different from the objective of the one who is using that data.
8.
(c) Primary data
Explanation: The data would be Primary data if it is collected directly from the informants.
9.
(c) Primary data
Explanation: It is primary data because the information or data collected through investigation is directly from the field. It is not from any other recorded sources.
10.
(d) All of these
Explanation: Source of biases in sampling is faulty selection of sample, faulty collection of information, defective analysis and interpretation.
11.
(d) Both investigator and enumerator
Explanation: Both investigator and enumerator
12.
(c) Primary data is more reliable than secondary data.
Explanation: Since primary data is collected by the investigator according to his/her objectives, the data is more reliable than secondary data.

13. **(b)** Both A and R are true but R is not the correct explanation of A.
Explanation: Both A and R are true but R is not the correct explanation of A.
14. **(d)** A is false but R is true.
Explanation: Research institutions, trade associations, universities, labor bureaus, research workers and scholars do collect data, but they normally do not publish it. An individual can also get the information from records and files of government and private offices.
15. **(b)** Publication by Trade Business Association
Explanation: Sugar mill association's publications are part of various industrial and trade associations and are Non-Government Publications
16. **(b)** Secondary data
Explanation: Because the data published by the Indian Railways would be reused by the researchers.
17. **(c)** Collecting valuable data from variety of sources, using suitable method of collection.
Explanation: In statistics, collection of data have two dimensions. ie; a collection of data from informants and the method of collecting it. here source means the population or the informants and methods are questionnaire, telephonic interview, information through correspondence, etc.
18. **(a)** Collection of data from sources who already have collected the data.
Explanation: When the data is collected by an individual or an organisation and another individual or organisation use that data , this data will termed as secondary data. The objective of collection may vary amongst the investigating and using organisation.
19. **(b)** It provides second hand information
Explanation: Primary Data does not provide second hand information.
20. They are considered to be the most important source of secondary data as the information supplied by these publications is authentic and reliable. NSSO is the authentic and reliable data collection agency of Government.
21. High degree of precaution is required in secondary data.
22. Secondary data should be used if there is a limited time frame.
23. The method of primary data collection depends upon the nature of the project and resources at the disposal of the investigator, area of inquiry, etc. Hence, it can be concluded that there is no best method for collecting primary data.

Section B

24. State True or False:

- (i) **(b)** False

Explanation: There are only two sources of data- primary and secondary data sources. The collection of data from its original source is termed as primary source of data. On the other hand, the collection of data that has already been collected by somebody else in the past is termed as secondary source of data.

- (ii) **(b)** False

Explanation: False

Section C

25. Fill in the blanks:

- (i) 1. Secondary
(ii) 1. Secondary data
(iii) 1. Primary

26. Primary data is definitely better than secondary data because it is specifically collected to study the relevant points of the problem under consideration. Primary data is original and first-hand information. However, the collection of primary data is time-consuming and expensive. So, if there are no constraints related to resources and time, the primary data should be the logical

choice. Primary data is collected originally and is considered to be the most popular and common tool. But, if there are limited resources and time frame then secondary data should be opted for.

27. Yes, I agree. Primary data when used by others become secondary data. The basic difference between primary data and secondary data is of degree. The data collected by one will be primary but the same data used by another will make it secondary. For example, data collected by Ministry of Human Resource with regard to birth rate in the country is primary data. However, if the same data is used by us, it becomes secondary.
28. It is rightly said that the difference between primary data and secondary data is of degree. Data collected by X will be primary for X and secondary for everyone else. The one who collects any data, data are primary in his hands and as soon as any other person wants to use it, it becomes secondary. For example, Population Census is conducted by the government of India every 10 years, it is primary for the government but when a book writer takes data of demographic condition of India from the reports of these census, it is secondary for him. Therefore, it is rightly said first hand data. Only in first hand, it is primary. When it goes to second hand, it becomes secondary.
29. i. When the respondents are reluctant to answer certain questions in personal interviews.
ii. When the informants are dispersed over a large geographical area.
iii. This method is suitable in cases where the budget is low.
iv. Exit polls, opinions about music or dance performances, etc.
30. The data contained in the table is secondary because of the following reasons:
i. It is already collected and processed by the Census of India and is ready for use.
ii. Aryan has not collected the data himself.
iii. The data is not original.
31. Data that has been collected from first-hand experience is known as primary data. Primary data has not been published yet and is more reliable, authentic and objective. Primary data has not been changed or altered by human beings; therefore, its validity is greater than secondary data. For example data collected in a survey .
32. Data collected from a source that has already been published or collected in any form is called as secondary data. The review of literature in any research is based on secondary data. It is collected mostly from books, journals and periodicals. For example demographic data i.e data pertaining to birth rates, death rates etc.
33. The investigation should take precautions before using the secondary data. In this connection, following precautions should be taken into account.
1. **Suitable purpose of investigation:** The investigator must ensure that the data are suitable for the purpose of enquiry.
 2. **Inadequate data:** Adequacy of the data is to be judged in the light of the requirements of the survey as well as the geographical area covered by the available data.
 3. **Definition of units:** The investigator must ensure that the definitions of units which are used by him are the same as in the earlier investigation.
 4. **Degree of accuracy:** The investigator should keep in mind the degree accuracy maintained by each investigator.
 5. **Rime and condition of collection of facts:** It should be ascertained before making use of available data to which period and conditions, the data was collected.
 6. **Comparison:** Investigator should keep in mind whether the secondary data' reasonable, consistent and comparable.
 7. **Test checking:** The use of the secondary data must do test checking and see that totals and rates have been correctly calculated.
 8. **Homogeneous conditions:** It is not safe to take published statistics at their face value without knowing their means, values and limitations.

Section D

34. (d) Secondary
Explanation: Secondary
35. (c) Schedule
Explanation: Schedule
36. (b) Semi-Government Publications
Explanation: Semi-Government Publications
37. (b) persons with disabilities and drinking water
Explanation: persons with disabilities and drinking water
38. **Primary Data**

1. The data collected by the investigator for his own purpose for the first time are called primary data.
2. These are original as these are collected from the source of origin.
3. These are costlier in terms of time, money and efforts involved.
4. Example: Investigator makes a list of marks obtained by students in economics of class XI by interrogating them.

Secondary Data

1. Data which are already in existence and which have been collected for some other purposes are called secondary data.
2. These are not original as these are already in existence. These can be obtained from published or from any other sources.
3. These are less costlier in terms of time, money and efforts involved.
4. Example: Investigator collects the marks obtained by class teacher in economics of class XI from his school records like award list, result register etc.

39. Sources of secondary data Published

1. Govt. publication
2. semi-govt. publication
3. Reports of committees & commissions
4. Private publication e.g., Journals and Newspapers research institute, publication of trade association.
5. International publications

Unpublished Sources

The statistical data needn't always be published. There are various sources of unpublished statistical material such as the records maintained by private firms, business enterprises, scholars, research workers, etc. They may not like to release their data to any outside agency.

40. The differences between primary and secondary data are:

Basic	Primary Data	Secondary Data
Originality	They are original.	They are not original.
Time and Cost	The collection of primary data requires a lot of manpower, money and time.	This source is relatively cheaper.
Precautions	No precaution is required while using primary data.	It should be used with great care and caution.
Source	They are collected by some agency or person by using the various methods of data collection.	They are already collected and processed by some person or agency and are ready for use.
Organization Factor	Collection of primary data requires elaborate organizational set up.	There is no need for organizational set up in case of secondary data.
Reliability and suitability	Primary data is more reliable and suitable to the enquiry as the investigator himself collects it.	Secondary data is less reliable and less suitable as someone else has collected the data which may not serve the purpose.

41. Importance of Primary data cannot be neglected. A research can be conducted without secondary data but a research based on only secondary data is least reliable and may have biases because secondary data has already been manipulated by human beings.

Validity: Validity is one of the major concerns in a research. Validity is the quality of a research that makes it trustworthy and scientific. Validity is the use of scientific methods in research to make it logical and acceptable. Using primary data in research can improve the validity of research. Firsthand information obtained from a sample that is representative of the target population will yield data that will be valid for the entire target population.

Authenticity: Authenticity is the genuineness of the research. Authenticity can be at stake if the researcher invests personal biases or uses misleading information in the research. Primary research tools and data can become more authentic if the methods chosen to analyze and interpret data are valid and reasonably suitable for the data type. Primary sources are more authentic because the facts have not been overdone. Primary source can be less authentic if the source hides information or alters facts due to some personal reasons. There are methods that can be employed to ensure factual yielding of data from the source.

Reliability: Reliability is the certainty that the research is enough true to be trusted on. For example, if a research study concludes that junk food consumption does not increase the risk of cancer and heart diseases. This conclusion should have to be drawn from a sample whose size, sampling technique and variability is not questionable. Reliability improves with using primary data. In the similar research mentioned above, if the researcher uses experimental method and questionnaires, the result will be highly

reliable. On the other hand, if he relies on the data available in books and on internet ,he will collect information that does not represent the real facts.

Some Disadvantages of using Primary data

1. The investigator has to contend with all the hassles of data collection-
 - i. deciding why, what, how, when to collect
 - ii. getting the data collected (personally or through others)
 - iii. getting funding and dealing with funding agencies
 - iv. Ethical considerations (consent, permissions, etc.)
2. Ensuring the data collected is of a high standard-
 - i. all desired data is obtained accurately, and in the format, it is required in
 - ii. there is no fake/ cooked up data
 - iii. unnecessary/ useless data has not been included
3. Cost of obtaining the data is often the major expense in studies.

42. There are two sources of Collection of data:

- i. **Primary source:** Primary source of data implies Collection of data from its source of origin. It offers you first hand quantitative information relating to your statistical study.
- ii. **Secondary Source:** It implies Collection of data from some agency or institution which already happens to have collected the data through statistical survey. It does not offer you first hand information relating to your statistical study. You are to rely on the information which is already existing.

43. **Advantages of Secondary Data:**

1. Sometimes it is difficult to obtain primary data; in these cases, getting information from secondary sources is easier and possible. Sometimes primary data does not exist in such situation one has to confine the research on secondary data.
2. Sometimes primary data is present but the respondents are not willing to reveal it in such case too secondary data can suffice
3. Secondary data is often readily available. After the expense of electronic media and internet the availability of secondary data has become much easier.

Disadvantages of Secondary Data:

1. The investigator cannot decide what is to be collected but has to rely on whatever is available.
2. One can only hope that the data is of good quality
3. It is not possible to get additional clarification or information.

44. Difference between primary and secondary data:

Primary data	Secondary data
1. Primary data are those data which are collected from the primary sources.	1. Secondary data are those data which are collected from the secondary sources.
2. Primary data are known as basic data.	2. Secondary data are known as subsidiary data.
3. The collection of primary data is more expensive.	3. The collection of secondary data is comparatively less expensive.
4. It takes more time to collect the data.	4. It takes less time to collect the data.
5. Primary data are more accurate.	5. Secondary data are less accurate than the primary data.
6. Primary data are known as firsthand data.	6. Secondary data are known as second hand data.
7. Primary data are not readily available.	7. Subsidiary data are readily available.
7. Subsidiary data are not readily available.	8. It is not required to take much care at the time of collecting data.

Section E

45. **(d)** Primary data
Explanation: Primary data
46. **(c)** Primary sources
Explanation: Primary sources
47. **(a)** Diary entry
Explanation: Diary entry

48. (d) Primary
Explanation: Primary

49. 1. Secondary

Section F

50. Since secondary data have already been obtained it is highly desirable that proper scrutiny of such data is made before they are used by the investigator. In fact, the user has to be extra-cautious while using secondary data. In this context, Prof. Bowely rightly points out that “secondary data should not be accepted at their face value”. The reason is that such data may be erroneous in many respects due to bias, inadequate size of the sample, substitution, errors of definition, arithmetical errors, etc. Even if there is no error such data may not be suitable and adequate for the purpose of the enquiry. Hence before using such data, the investigator should consider the following aspects:

i. **Reliability of Data:** The first and foremost concern of the investigator should be that whether the secondary data is reliable or not.

In order to check the reliability of data, the investigator should inquire about

- a. the reliability, integrity, and experience of the collecting organization.
- b. the reliability of the source of information.
- c. the methods used for the collection and analysis of the data.

ii. **Suitability of Data:** After satisfying himself as regards to the reliability of data, the investigator should check whether the data is suitable or not.

For this, it is important that the investigator

- a. observes and compares the objectives, nature, and scope of the given inquiry with the original inquiry.
- b. confirms that the various terms and units were clearly defined and were also uniform throughout the earlier investigation and these are relevant for the present inquiry also.
- c. takes into account the difference in time periods for the original inquiry and the investigation in hand.

iii. **Adequacy of Data:** After satisfying himself about the reliability and suitability of data, the investigator should check whether data is adequate or not.

For this, he should

- a. check the area of study to which the data relates
- b. check the time period which the data covers.