



# SCA - 106

## Standard on Cost Auditing

### “Audit Sampling”

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The following is the **Standard on Cost Auditing** on “**Audit Sampling**”. In this Standard, the standard portions have been set in ***bold italic*** type. This standard should be read in the context of the background material, which has been set in normal type.

## **1. Introduction**

This standard applies when the Cost Auditor has decided to use Audit Sampling in performing audit procedures for the audit of cost statements, cost records and other related documents.

## **2. Objective**

***The objective of this standard is to provide a reasonable basis for the Cost Auditor to draw conclusion about the population from which the sample is selected in performing audit procedures for the audit of cost statement, cost records and other related documents.***

## **3. Scope**

***3.1 This standard deals with the cost auditor’s use of statistical and non-statistical sampling when designing and selecting the audit sample, performing tests of controls and test of details, and evaluating the results from the sample.***

***3.2 This standard also deals with the cost auditor’s responsibility to design and perform cost audit procedures to obtain sufficient appropriate audit evidence to be able to draw reasonable conclusions on which to base the cost auditor’s opinion.***

## **4. Definition**

The following terms are being used in this standard with the meaning specified.

***4.1 Anomaly: A misstatement or deviation that is demonstrably not representative of misstatement or deviations in a population.***

***4.2 Audit: Audit is an independent examination of financial, cost and other related information of an entity whether profit oriented or not, irrespective of its size or legal form, when such an examination is conducted with a view to expressing an opinion thereon.***



- 4.3 Audit Partner:** *Audit partner means the partner in the firm who is a member of the Institute of Cost Accountants of India and is in full time practice and is responsible for the audit and its performance, and for the report that is issued on behalf of the firm, and who, where required, has appropriate authority from a professional, legal or regulatory body.*
- 4.4 Audit Team:** *Audit team means all personnel performing an engagement, including any experts contracted by the firm in connection with that engagement.*
- 4.5 Auditor:** *Auditor is used to refer to the person or persons conducting the audit, usually the audit partner or other member of the audit team, or, as applicable the firm, Auditor includes Cost Auditor.*
- 4.6 Audit Sampling:** *The application of audit procedure to less than 100% of items within a population of audit relevance such that all sampling units have a chance of selection in order to provide the Cost Auditor a reasonable basis to draw conclusions about the entire population.*
- 4.7 Cost Audit:** *Cost Audit is an independent examination of cost statements, cost records and other related information of an entity including a non-profit entity, when such an examination is conducted with a view to expressing an opinion thereon.*
- 4.8 Cost Auditor:** *“Cost Auditor” means an auditor appointed to conduct an audit of cost records and shall be a cost accountant within the meaning of The Cost and Works Accountants Act 1959. “Cost Accountant” is a cost accountant as defined in clause (b) of sub-section (1) of section 2 of The Cost and Works Accountants Act, 1959 (23 of 1959) and who holds a valid certificate of practice under subsection (1) of section 6 and who is deemed to be in practice under subsection (2) of section 2 of that Act and includes a firm of cost accountants.*
- 4.9 Cost Records:** *Cost Records means books of accounts relating to utilization of materials, labour and other items of cost, to facilitate calculation of true and fair cost of production or cost of operations, cost of sales, and margin for each product or service or activity, produced or provided by an entity including a non-profit entity, for any period, in*



**compliance with Cost Accounting Standards issued by the Institute of Cost Accountants of India.**

**4.10 Cost Reporting Framework: Cost Reporting Framework means the framework adopted by the management and, where appropriate, by those charged with governance, in the preparation of the cost statements that is acceptable in view of the nature of the entity and the objective of the cost report, or that is required by law or regulation.**

**4.11 Cost Statements:-Cost Statements, in relation to an entity, includes**

- (i) quantitative details of capacity, production and sales;**
- (ii) quantitative details of consumption of materials and other inputs;**
- (iii) cost sheet showing element-wise cost of production of goods or provision of services, cost of sales and margin for each product or service;**
- (iv) reconciliation of profits, or in case of an entity carrying on any activity not for profit, of surplus, as per cost accounts and as per financial accounts;**
- (v) statement of value addition and distribution of earnings; and**
- (vi) any explanatory note annexed to, or forming part of, any document referred to in (i) to (v) above.**

**4.12 Firm: Firm means a sole practitioner, partnership including LLP (Limited Liability Partnership) or any other entity of professional cost accounts as may be permitted by law and constituted under The Cost and Works Accountants Act & Regulations.**

**4.13 Misstatement: A difference between the amounts, classification, presentation or disclosure of a reported cost statement item and the amount, classification, presentation, or disclosure that is required for the item to be in accordance with the applicable cost reporting framework. Misstatement can arise from error or fraud.**

Where the cost auditor expresses an opinion on whether the cost statements give a true and fair view, misstatements also include those adjustments of amounts, classifications, presentation, or disclosures that, in the cost auditor's judgement, are necessary for the cost statements to be presented fairly, in all material respects, or to give a true and fair view.



**4.14 Non-sampling risk: The risk that the cost auditor reaches an erroneous conclusion for any reason not related to sampling risk.**

For example: Non-sampling risk includes use of inappropriate audit procedures, or misinterpretation of audit evidence and failure to recognize a misstatement or deviation.

**4.15 Performance Materiality: Performance materiality means the amount or amounts set by cost auditor at less than materiality for the cost statements as a whole to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatement exceeds materiality for the cost statements as whole. If applicable, performance materiality also refers to the amount or amounts set by the cost auditor at less than the materiality level or levels for particular classes of transactions, account balances or disclosures.**

**4.16 Population: The entire set of data from which a sample is selected and about which the cost auditor wishes to draw conclusions.**

**4.17 Sampling risk: The risk that the cost auditor's conclusion based on a sample may be different from the conclusion if the entire population were subjected to the same audit procedure. Sampling risk can lead to two types of erroneous conclusions:**

- i) In the case of a test of controls, that controls are more effective than they actually are, or in the case of a test of details, that a material misstatement does not exist when in fact it does. The auditor is primarily concerned with this type of erroneous conclusion because it affects audit effectiveness and is more likely to lead to an inappropriate audit opinion.**
- ii) In the case of a test of controls, that controls are less effective than they actually are, or in the case of a test of details, that a material misstatement exists when in fact it does not. This type of erroneous conclusion affects audit efficiency as it would usually lead to additional work to establish that initial conclusions were incorrect.**

**4.18 Statistical Sampling: An approach to sampling that has the following characteristics:**

- i) Random selection of the sample item: and**
- ii) The use of probability theory to evaluate sample results, including measurement of sampling risk.**



**iii) A Sampling approach that does not have characteristic (a) and (b) is considered non-statistical sampling.**

**4.19 Sampling Unit: The individual items constituting a population.**

The sampling unit might be physical item (for example, checks listed on material issue slip, consumption statement entries, sale invoices or inventory balances) or monetary units.

**4.20 Stratification: The process of dividing a population into sub-population, each of which is a group of sampling units which have similar characteristics (often monetary value).**

**4.21 Tolerable misstatement: A monetary amount set by the cost auditor in respect of which the cost auditor seek to obtain an appropriate level of assurance that the monetary amount set by the cost auditor is not exceeded by the actual misstatement in the population.**

When designing a sample, the cost auditor determines tolerable misstatement in order to address the risk that the aggregate of individually immaterial misstatement may cause the Cost Statement to be materially misstated and provide a margin for possible undetected misstatements. Tolerable misstatement is the application of performance materiality to a particular sampling procedure. Tolerable misstatement may be the same amount or an amount lower than performance materiality.

**4.22 Tolerable rate of deviation: A rate of deviation from prescribed internal control procedures set by the cost auditor in respect of which the cost auditor seeks to obtain an appropriate level of assurance that the rate of deviation set by the auditor is not exceeded by the actual rate of deviation in the population.**

## **5. Requirements**

**5.1 The cost auditor as part of the audit sampling shall consider the purpose of the cost audit procedure and the characteristics of the population when designing the audit sampling, its sufficient size and selection of items in such a way that each sampling unit in the population shall have the chance for testing in order to reduce sampling risk to an acceptably low level. (Refer 6.2 to 6.3)**



**5.2 The cost auditor shall perform cost audit procedure, appropriate to the purpose, on each item selected and if the cost audit procedure is not applicable to the selected item, the auditor shall perform the audit procedure on replacement items.**

For example; when it is necessary to perform the procedure on a replacement item; the cost auditor selects ten samples of inventory item for testing of consumption. Out of the sample selected, auditor noted that two samples have no consumption during the period under audit. The cost auditor shall choose appropriate replacement samples to replace the original samples. The original samples where there is no consumption are exception notes and need to be investigated, with the disposition properly documented i.e. input-output consumption norms. The cost auditor shall be satisfied that the original samples where there is no consumption are such that it does not constitute a deviation, and has appropriately chosen the replacement.

**5.3 If the cost auditor is unable to apply the designated cost audit procedure, or suitable alternative procedures, to a selected item, the cost auditor shall treat that item as a deviation from the prescribed control, in the case of tests of controls, or a misstatement, in the case of tests of details.(Refer 6.4)**

For example: When the cost auditor is unable to apply the designed cost audit procedure to a selected cost centre's direct labour is when documentation relating to their work done has been lost. An example of suitable alternative procedure might be the examination of job cards together with evidence of their attendance sheets.

**5.4 The cost auditor shall investigate the nature and causes of any deviation or misstatement identified, and thereby evaluate their possible effect on the purpose of cost audit procedure and on other areas of audit.(Refer 6.10)**

**5.5 In the extremely rare circumstances when the cost auditor considers a misstatement or deviation discovered in sample to be an anomaly, the cost auditor shall obtain a high degree of certainty that such misstatement or deviation is not representative of the population. The cost auditor shall obtain this high degree of certainty by performing additional audit procedure to obtain sufficient appropriate audit evidence that such misstatement or deviation shall not affect the remainder of the population.**



**5.6 The cost auditor shall project misstatements found in the sample to the population for the purpose of tests of details. (Refer 6.11 & 6.12)**

**5.7 The cost auditor shall ensure that the use of audit sampling has provided a reasonable basis for conclusions about the population tested and thereby shall evaluate the results derived from sample tested.(Refer 6.13 & 6.14)**

## **6. Application Guidance**

6.1 The cost auditor shall consider the following steps in planning, selecting and performing test thereupon, and evaluating the results derived from audit sampling:

- (a) Planning the audit sampling
  - (1) State the objective of audit test.
  - (2) Decide whether audit sampling applies.
  - (3) Define attributes and expectation conditions.
  - (4) Define population.
  - (5) Define sampling unit.
  - (6) Specify the tolerable expectation rate.
  - (7) Specify acceptable risk of assessing control risk.
  - (8) Estimate population expectation rate.
  - (9) Determine the initial sample size.
- (b) Selecting audit sampling and performing the tests
  - (1) Select the audit sampling.
  - (2) Perform the audit procedures.
- (c) Evaluating the audit sampling the results
  - (1) Generalize from the sample to population.
  - (2) Analyze exceptions.
  - (3) Decide the acceptability of the population.

6.2 In performing cost audit procedures, the appropriately designing of audit sampling enables the cost auditor to obtain and evaluate audit evidence about some characteristic of the items selected in order to form or assist in forming a conclusion concerning the



population from which the sample is drawn. Audit sampling can be applied using either non-statistical or statistical sampling approaches. (Refer 5.1)

6.3 The cost auditor shall include the following consideration when designing an audit sampling:

- 1) Specific purpose to be achieved.
- 2) Combination of audit procedure that is likely to best achieve audit purpose.
- 3) Nature of audit evidence sought
- 4) Factors of possible deviation or misstatement conditions or other characteristics relating to audit evidence
- 5) Circumstances relevant to the purpose of audit procedures shall also be included for the purpose of evaluation of deviation or projection of misstatement.

These considerations shall also assist cost auditor in defining what constitutes a deviation or misstatement and what population to be used for sampling. (Refer 5.1)

6.4 In considering the characteristics of a population from which the sample shall be drawn, for tests of controls, the cost auditor shall make an assessment of the expected rate of deviation based on the auditor's understanding of the relevant controls or on the examination of a small number of items from the population. This assessment shall be made in order to design an audit sample and to determine sample size, the cost auditor may also determine that stratification or value-weighted selection is appropriate. Appendix I provides further discussion on stratification and value-weighted selection. (Refer 5.3)

For example: If the expected rate of deviation is unacceptably high, the cost auditor shall normally decide not to perform tests of controls. Similarly, for tests of details, the cost auditor shall make an assessment of the expected misstatement in the population. If the expected misstatement in the population is high, 100% examination or use of a large sample size may be appropriate when performing tests of details.

6.5 The cost auditor shall determine the selection to use a statistical or non-statistical sampling approach on the basis of professional judgement; however, sample size is not a valid criterion to distinguish between statistical and non-statistical approaches.



- 6.6 The cost auditor shall also determine the sample size by the application of a statistically-based formula or through the exercise of professional judgment depending upon the level of sampling risk that the cost auditor is willing to accept affects the sample size required.(Refer Appendix II &III)  
For Example: The lower the risk the cost auditor is willing to accept, the greater the sample size shall be considered.
- 6.7 The cost auditor shall select samples on the basis of principal methods i.e. random selection, systematic selection, monetary unit sampling, haphazard selection and block selection as discussed in Appendix IV.
- 6.8 The purpose of sampling is to provide a reasonable basis for the cost auditor to draw conclusions about the population from which the sample is selected, it is important that the cost auditor shall select the representative sample, so that bias should be avoided, by choosing sample items which shall have characteristics typical of the population.
- 6.9 The cost auditor shall ensure when selecting statistical sampling that each items should be selected in such a way that each sampling unit shall have known probability of being selected. In selection of non-statistical sampling, judgment should be used to select sample items.
- 6.10 The cost auditor may observe that many sampling items have common feature in analyzing the deviations and misstatement identified. In such circumstances, the cost auditor may decide to identify all items in the population that possess the common feature and should extend audit procedure to those items. In addition, such deviation or misstatement may be intentional, and may indicate the possibility of fraud.(Refer 5.4)  
For Example: - Type of transaction, location, product line or periodicity.
- 6.11 The cost auditor shall be required to project misstatements for the population to obtain a broad view of scale of misstatement, if a misstatement has been established as an anomaly, it may be excluded when projecting misstatement to the population, However, the effect of any such misstatement, if uncorrected, still needs to be considered in addition to the projection of the non-anomalous misstatements.(Refer 5.6)



- 6.12 The cost auditor shall not necessarily explicit projection of deviation since the sample deviation rate shall also be the projected deviation rate for the population as a whole. If deviations from controls upon which the auditor intend to rely shall be detected, In such case, the cost auditor shall make specific inquiries to understand these matters and their potential consequences, and shall determine whether:
- (a) The tests of controls that have been performed provide an appropriate basis for reliance on the controls:
  - (b) Additional tests of control are necessary: or
  - (c) The potential risks of misstatement need to be addressed using substantive procedures.(Refer 5.6)

For example: The concept of effectiveness of the operation of controls recognizes that some deviations in the way controls are applied by the entity may occur. Deviations from prescribed controls may be caused by such factors as changes in key personnel, significant seasonal fluctuations in volume of transactions and human error. The detected rate of deviation, in particular in comparison with the expected rate, may indicate that the control cannot be relied on to reduce risk at the assertion level to that assessed by the auditor.

- 6.13 The cost auditor shall evaluate the results of Audit sampling in the following manner
- (a) For tests of controls, an unexpectedly high sample deviation rate may lead to an increase in the assessed risk of material misstatement, unless further audit evidence substantiating the initial assessment is obtained.
  - (b) For tests of details, an unexpectedly high misstatement amount in a sample may cause the cost auditor to believe that a class of transactions or account balance is materially misstated, in the absence of further audit evidence that no material misstatement exists. In such a case, the projected misstatement plus anomalous misstatement, if any, shall be the auditor's best estimate of misstatement in the population. (Refer 5.7)

When the projected misstatement plus anomalous misstatement, if any, exceeds tolerable misstatement, the sample does not provide a reasonable basis for conclusions about the population that has been tested. The closer the projected misstatement plus anomalous misstatement is to tolerable misstatement, the more likely that actual misstatement in the



population may exceed tolerable misstatement. Also if the projected misstatement is greater than the cost auditor's expectations of misstatement used to determine the sample size, the cost auditor may conclude that there is an unacceptable sampling risk that the actual misstatement in the population exceeds the tolerable misstatement. Considering the results of other cost audit procedures helps the cost auditor to assess the risk that actual misstatement in the population exceeds tolerable misstatement, and the risk may be reduced if additional audit evidence is obtained.

- 6.14 If the cost auditor shall conclude that audit sampling has not provided a reasonable basis for conclusions about the population that has been tested, the auditor may:
- (a) Request management to investigate misstatements that have been identified and the potential for further misstatements and to make any necessary adjustments; or
  - (b) Tailor the nature, timing and extent of those further audit procedures to best achieve the required assurance. For example, in the case of tests of controls, the auditor might extend the sample size, test an alternative control or modify related substantive procedures.(Refer 5.7)

## **7. Effective Date**

This Standard is effective for audits on or after .....

## **8. Statement of Modifications: Modifications to ISA 530, "Audit Sampling"**

The ISAs have been developed with focus on Auditing of Financial Statements, while the focus of SCAs is on Auditing of Cost Statements. Hence, following changes are introduced across all the SCAs:

1. Change of 'terms' used in the ISAs that have corresponding meaning in cost audit vis-à-vis financial audit, such as Auditor with Cost Auditor, Audit with Cost Audit, Financial Statements with Cost Statements, Financial Reporting with Cost Reporting, Audit Procedures with Cost Audit Procedures, Auditor's Responsibility with Cost Auditor's Responsibility, etc.;
2. Corresponding modification in definitions of similar terms, examples used and in the Application Guidance;
3. Unlike the practice followed in ISAs, definitions of all 'terms' relevant to this SCA are reproduced.



**Appendix I**  
**(Refer Para 6.4)**

**Stratification and Value-Weighted Selection**

In considering the characteristics of the population from which the audit sample shall be drawn, the cost auditor may determine that stratification or value-weighted selection is appropriate. This Appendix provides guidance to the cost auditor on the use of stratification and value-weighted sampling techniques.

**Stratification**

1. Audit efficiency may be improved if the auditor stratifies a population by dividing it into discrete sub-populations which have an identifying characteristic. The objective of stratification is to reduce the variability of items within each stratum and therefore allow sample size to be reduced without increasing sampling risk.
2. When performing tests of details, the population is often stratified by monetary value. This allows greater audit effort to be directed to the larger value items, as these items may contain the greatest potential misstatement in terms of overstatement. Similarly, a population may be stratified according to a particular characteristic that indicates a higher risk of misstatement,  
For example, when testing the allowance for obsolete inventory in the valuation of Stock in hand, Inventory item balances may be stratified by age.
3. The results of audit procedures applied to a sample of items within a stratum can only be projected to the items that make up that stratum. To draw a conclusion on the entire population, the auditor shall need to consider the risk of material misstatement in relation to whatever other strata make up the entire population. For example, 20% of the items in a population may make up 90% of the value of an account balance. The auditor may decide to examine a sample of these items. The auditor evaluates the results of this sample and reaches a conclusion on the 90% of value separately from the remaining 10% (on which a further sample or other means of gathering audit evidence will be used, or which may be considered immaterial).
4. If a class of transactions or account balance has been divided into strata, the misstatement is



projected for each stratum separately. Projected misstatements for each stratum are then combined when considering the possible effect of misstatements on the total class of transactions or account balance.

### Value-Weighted Selection

5. When performing tests of details it may be efficient to identify the sampling unit as the individual monetary units that make up the population. Having selected specific monetary units from within the population, for example, the accounts receivable balance, the auditor may then examine the particular items, for example, individual balances, that contain those monetary units. One benefit of this approach to defining the sampling unit is that audit effort is directed to the larger value items because they have a greater chance of selection, and can result in smaller sample sizes. This approach may be used in conjunction with the systematic method of sample selection (described in Appendix 4) and is most efficient when selecting items using random selection.

### Appendix II (Refer Para 6.6)

### Examples of factors Influencing Sample Size for Tests of Controls

The following are relevant factors that the cost auditor may consider when determining the sample size for tests of controls. These factors, which shall be needed to be considered together, assuming the cost auditor shall not modify the nature or timing of tests of controls or otherwise shall modify the approach to substantive procedures in response to assessed risk.

Factor	Effect on Sample Size	
An increase in the extent to which the cost auditor's risk assessment takes into account relevant controls.	Increase	The more assurance cost auditor intends to obtain from the operating effectiveness of controls, the lower the auditor's assessment of the risk of material misstatement shall be, and larger the sample size shall be needed. When the auditor's assessment of the risk of material misstatement at the assertion level



		includes an expectation of the operating effectiveness of controls, the auditor shall be required to perform tests of controls, other things being equal, the greater the reliance the auditor shall place on the operating effectiveness of controls in the risk assessment, the greater shall be the extent of auditor's tests of controls (and therefore sample size shall be increased)
2. An increase in the tolerable rate of deviation.	Decrease	The lower the tolerable rate of deviation, the larger the sample size shall be needed.
3. An increase in the expected rate of the deviation of the population to be tested.	Increase	The higher the expected rate of deviation, the larger the sample size shall be needed, so that the cost auditor shall be in a position to make a reasonable estimate of the actual rate of deviation. Factors relevant to the auditor's consideration of the expected rate of deviation shall include the understanding of operation (in particular, risk assessment procedures undertaken to obtain an understanding of internal control). Changes in personal or in internal controls, the results of audit procedure applied in prior periods and the results of other audit procedure, High expected control deviation rates ordinarily warrant little, if any, reduction of the assessed risk of material misstatement.
4. An increase in the auditor's desired level of assurance that the tolerable rate of deviation is not exceeded by the actual rate of deviation in the population	Increase	The greater the level of assurance that the auditor shall desire that the results of the sample are in fact indicative of the actual incidence of deviation in the population, the larger the sample size shall be needed
5. An increase in the number of	Negligible effect	For large populations, the actual has little,



sampling units in the population		if any, effect on sample size, For small populations however, audit sampling may not be as efficient as alternative means of obtaining sufficient appropriate audit evidence.
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**Appendix III**  
**(Refer Para 6.6)**

**Examples of factors Influencing Sample Size for Tests of Details**

The following are relevant factors that the auditor may consider when determining the sample size for tests of details. These factors, which shall be needed to be considered together, assuming the cost auditor shall not modify the approach of tests of controls or otherwise shall modify the nature and timing of substantive procedures in response to assessed risk.

<b>Factor</b>	<b>Effect on Sample Size</b>	
1. An increase in the auditor's assessment of the risk of material misstatement.	Increase	<p>The higher the auditor's assessment of the risk of material misstatement, the larger the sample size shall be needed. The auditor's assessment of the risk of material misstatement is affected by inherent risk and control.</p> <p>For example, if the auditor shall not perform tests of controls, the auditor's risk assessment could not be reduced for the effective operation of internal controls with respect to particular assertion. Therefore, in order to reduce audit risk to an acceptably low level, the cost auditor shall need a low detection risk and will rely more on substantive procedures. The more audit evidence that shall be obtained from tests of details (that is , lower the detection risk). Larger the sample size shall be needed.</p>



2. An increase in the use of substantive procedure directed at the same assertion.	Decrease	The more the auditor shall be relying on substantive procedure (tests of details or substantive analytical procedures) to reduce to an acceptable level the detection risk regarding a particular population, the less assurance the auditor shall require from sampling and therefore, the smaller the sample size could be.
3. An increase in the auditor's desired level of assurance that tolerable misstatement is not exceeded by actual misstatement in the population.	Increase	The greater the level of assurance that the cost auditor requires that the results of the sample are in fact indicative of the actual amount of misstatement in the population, the larger the sample size shall be needed.
4. An increase in tolerable misstatement.	Decrease	The lower the tolerable misstatement, the larger the sample size shall be needed.
5. An increase of the amount of misstatement the auditor expects to find in the population	Increase	The greater the amount of misstatement the auditor expects to find in the population, the larger the sample size shall be needed, in order to make a reasonable estimate of the actual amount of misstatement in the population. Factors relevant to the auditor's consideration of the expected misstatement amount include the extent to which item values are determined subjectively as follows: (a) the results of risk assessment procedures, (b) the results of tests of control, (c) the result of audit procedures applied in prior periods and (d) the results of other substantive procedures.
6. Stratification of the	Decrease	When there is a wide range (variability) in



population when appropriate		the monetary size of items in the population, it may be useful to stratify the population. When a population can be appropriately stratified, the aggregate of the sample sizes from the strata generally shall be less than the sample size that would have been required to attain a given level of sampling risk, had one sample been drawn from the whole population.
7. The number of sampling units in the population	Negligible effect	For large populations, the actual size of the population has little, if any, effect on sample size. Thus, for small populations, audit sampling is often not as efficient as alternative means of obtaining sufficient appropriate audit evidence. (However, when using monetary unit sampling, an increase in the monetary value of the population increases sample size, unless this is offset by a proportional increase sample size, unless this is offset by a proportional increase in materiality for the cost statements as a whole [and, if applicable, materiality level or levels for particular classes of transaction, account balances or disclosures])

**Appendix IV**  
**(Refer Para. 6.7)**

**Sample Selection Methods**

There are many methods of selecting samples. The principal methods are as follows:

- (a) Random selection (applied through random number generators, for example, random number tables). This method of sampling ensures that all items within a population stand an equal chance of selection.



- (b) Systematic selection, in which the number of sampling units in the population is divided by the sample size to give a sampling interval, for example 50, and having determined a starting point within the first 50, each 50<sup>th</sup> sampling unit thereafter is selected. Although the starting point may be determined haphazardly, the sample is more likely to be truly random if it is determined by use of a computerised random number generator or random number tables. When using systematic selection, the auditor would need to determine that sampling units within the population are not structured in such a way that the sampling interval corresponds with a particular pattern in the population.
- (c) Monetary Unit Sampling is a type of value-weighted selection (as described in Appendix 1) in which sample size, selection and evaluation results in a conclusion in monetary amounts.
- (d) Haphazard selection, in which the auditor selects the sample without following a structured technique. Although no structured technique is used, the auditor would nonetheless avoid any conscious bias or predictability. For example, avoiding difficult to locate items, or always choosing or avoiding the first or last entries on a page) and thus attempt to ensure that all items in the population have a chance of selection. Haphazard selection is not appropriate when using statistical sampling.
- (e) Block selection involves selection of a block(s) of contiguous items from within the population. Block selection cannot ordinarily be used in audit sampling because most populations are structured such that items in a sequence can be expected to have similar characteristics to each other, but different characteristics from items elsewhere in the population. Although in some circumstances it may be an appropriate audit procedure to examine a block of items, it would rarely be an appropriate sample selection techniques when the auditor intends to draw valid inferences about the entire population based on the sample.