CHAPTER II

AUDITING STANDARDS

INTRODUCTION

Auditing Standards as the very name indicates refers to Standards for Audit performance. They are the measures of quality of performance of auditing procedure and the objective to be attained by using the procedures followed.

The auditor’s objective is to reach a conclusion on whether the financial statements taken as a whole are materially mis-stated. The auditor is expected to accumulate the potential of such adjustments and evaluate the combined effect. If he has concluded that the financial statements are materially affected by an irregularity he should either insist on the financial statements being revised or if they are not revised he should qualify his opinion on the financial statements. He should disclose substantive reasons for his opinion.

In a computerised environment it is expected that the auditor should satisfy himself that the controls are adequate enough to produce accurate and complete financial statements. Should he not have evaluated the controls or having evaluated the controls he concludes that they are inadequate and hence the likelihood of the financial statements being materially misstated, the auditor is expected to qualify his opinion.
American Institute of Certified Public Accountants (AICPA) issues standards on Auditing Standards. (SAS) which concern the external Auditors responsibilities. Periodically new SASs are issued superceding the earlier ones.

SAS 31 deals with evidential matter.

SAS No.31 (AU Section 326.12): as emended by SAS No. 48, makes it clear that audit evidence is not affected by the use of computer processing. Only the method by which the auditor gathers that evidence can be affected.

The auditor's specific audit objectives do not change whether accounting data is processed manually or by computer. However, the methods of applying audit procedures to gather evidence may be influenced by the method of data processing. The auditor can use either manual audit procedures, computer-assisted audit techniques, or a combination of both to obtain sufficient, competent evidential matter. However, in some accounting systems that use a computer for processing significant accounting applications, it may be difficult or impossible for the auditor to obtain certain data for inspection, inquiry, or confirmation without computer assistance.

The American Institute of Certified Public Accounts Computer Auditing sub-committee provides guidance on the effect of computerisation on the audit process. This committee advises the Audit Standards Board and other AICPA Committees on matters relating to Audits that involve computerised systems. The AICPA has come out with several publications providing guidance related to the computer environment. However, these are not official pronouncements but only guidelines.
1. **Management Control and Audit of Advanced EDP systems** was issued in 1983. This guideline describes the characteristics of advanced EDP systems. It discusses control mechanisms and auditing of such systems.

2. **Audit & considerations in an "on-line environment"** is another guideline published in 1983. This guideline contains a description of the various environments that are encompassed by 'on-line systems'.

This guideline identifies the impact of the 'on-line environment' on the auditor's study and evaluation of the system of internal accounting control.

"**Controls over using and changing computer programmes** is a guideline issued in 1979 which provides guidance to ensure that no unauthorised changes are made to the programme and that any changes are duly authorised by Management".

"**Computer-assisted audit techniques**. The guideline issued as early as in 1979 describes audit tools and techniques that are relevant for auditing effectively in a computerised environment.

An Accounting Guide entitled "Audit of Service Centre" was originally issued in 1974 and subsequently revised in 1987. This guide addresses the special problem for auditing organisations which utilise external service centre facility. The revised guide has incorporated all relevant auditing pronouncements as also the general guidance in SAS 44 "Special purpose reports on official accounting control by service organisations. The guide has three chapters as follows:

i. **Effect of an organisation's use of an EDP Service Centre on the auditor's study and evaluation of internal control.**
ii. Reporting of reviews on EDP Service Centre;

iii. Using reports on internal control at EDP Service Centre on the auditor’s study and evaluation of internal control.

i. **Effect of an organisation’s use of EDP Service Centre on the auditor’s study and evaluation of internal control**

This Chapter discusses the impact of using EDP Service Centre on the system of internal accounting control and the user organisation. It also deals with the impact which it will have on the auditor’s study and evaluation of the system of the organisation. It makes specific mention of the circumstances in which the auditor of such an organisation should include in the study control procedures at an EDP Service Centre.

ii. **Reporting of reviews on EDP Service Centres**

The EDP Service Centre would generally be used by different organisations who may be having different auditors. It would be difficult for the service centre to subject itself for a review by all the auditors. In this chapter, a reasonable alternative has been suggested by which a single auditor specifically reviews the internal control procedures of the service Centre and reports the results of other auditors.

The guide describes the manner in which the auditor of the Service Centre would report the results of the Review of the Service Centre. The guide further provides that while the auditors use the report of the service centre auditor, they would continue to retain the responsibility for evaluating the internal control system at the service centre.
Using reports on internal control at EDP Service Centre

The guide discusses how the service auditor's report can be utilised by the auditor of the organisation in evaluating the integrity of the financial statements of the client.

AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, U.S.A.

The American Institute of Certified Public Accountant (AICPA) issues procedure studies which though not authoritative, provide practical assistance in carrying out auditing procedures.

Computer Audit sub committee of AICPA have five separate Task Forces for developing auditing procedure studies in computerised environment. The studies which have been completed and released for member's benefit are as follows:

a) Auditors use of micro-computer published in 1986. This provides guidance to auditors to use micro-computers as an audit tool.

b) Auditing in a paperless environment

This study describes the benefit of a paperless environment on the audit approach, specially in view of the inherent risk when there is no paper trail to substantiate the transactions.

c. Audit impact on small (micro-mini) computer systems

The study provides guidance when clients operate in the above environment with special reference to the fact that reliance on computer controls unlikely.
d. Audit impact on mid-size (mini/miniframe) computer systems

This study will guide when clients use not so much complex a computer systems but there is some reliance on computer controls.

e. Audit impact of large (complex) computer systems

This study will provide guidance on following inherent and control risks in auditing an organisation in the above environment. There is greater likelihood of there being significant relevance on controls.

Auditing standards Board has approved the issue of a set of general standards called Attestation Standards. These specifically affect some computer-related engagement. They are written broadly to apply to all attestation certificates in which a certified public accountant issues a report which contains conclusion on an assertion after examining such assertion.

Attestation standards deal with

a) Technical competence
b) Due care
c) Adequate Planning
d) Sufficient evidence
e) Proper reporting

Attestation standards are thus similar to the generally accepted auditing standards (GAAS).
The Institute of Internal Auditors in 1977 published a Report (systems auditability and control report). IBM provided a grant to IIA and the study was conducted by Stanford Research Institute which published in three volumes as:

i. Executive report

ii. Control Practices report

iii. Audit practices report.

Though published almost two decades ago, many of the findings and conclusions of the study are relevant and proper to the audit and control of EDP Systems of the current day.

Executive report

This provides an overview of the audit of EDP systems and the study has concluded that in spite of data processing systems and internal audit techniques continuing to evolve co-ordination between the two disciplines is not keeping pace.

Control practices report while discussing specific control techniques classifies the control as general control and application control. The study recommends that the auditor should be associated with pre-installation review so that better systems and effective controls could be applied.

The Audit Practices Report contains a list of 28 audit tools and techniques for effective use by auditors while auditing in a computerised environment.
The Institute of Internal Auditors again under a grant from IBM and research by Price Waterhouse published the systems auditability and control report in 1991. The grant was as large as US $500000 and over 150 volunteers participated in the development and review of the SAS report. The report consists of 12 modules as follows:

1. Executive summary
2. Audit and Control environment
3. Using Information Technology in Auditing
4. Managing Computer Resources
5. Managing Information and Developing systems
6. Business systems
7. End-user and department computing
8. Telecommunications
9. Security
10. Contingency Planning
11. Emerging Technologies
12. Index

The Research Report in its Executive summary concludes as follows:

"Professional internal auditors of the 1992 have the necessary understanding and skills to review controls over information technology. As control specialists, auditors assist management in its responsibility to implement cost-effective controls to mitigate the risks associated with the use of information technology and to meet the objectives of the organisation."
Responsible information systems professionals and system users of the 1990s understand information technology risks, implement proper controls and ensure auditability of information systems. The SAS Report provides the guidance to management and practitioners in internal audit, information systems, user functions and other groups interested in the control and audit of all areas of information system and technology.

The EDP Auditors Association which has its headquarters in USA is the only professional Association dedicated solely to EDP auditing. The EDP Auditors Association was established in 1985.

EDP Auditors Foundation (EDPAF)

The EDP Auditors Foundation develops and promulgates official auditing standards applicable to EDP auditing. Its objectives as stated are:

1. Develop and maintain professional standards, provide credentials as Certified Information Systems Auditors (CISA) to individuals whose competence meets the organisation's standards.
2. Provide education in EDP auditing.
3. Conduct Research in EDP auditing and Controls
4. Assist qualified individuals in the study of EDP Auditing

ETHICS AND STANDARDS

EDP Auditors Foundation has established a code of professional conduct for Certified Information Systems Auditors. The EDP Auditors Association published in
1987 a "General Standards for Information Systems Auditing". The EDP Auditors Association has a Standards Board which is a Standing Committee. The Board's formally adopted mission is as follows:

"To advance the quality of information systems auditing, it is the responsibility of the Standards Board to promulgate and maintain standards of practices. These standards apply to members of the EDPAA and to holders of the certification in information systems auditing.

The Standards authority is derived from the code of professional ethics which provides that members of the EDPAA and holders of CISA will apply Information Systems Auditing Standards adopted by the EDPA Foundation. As is mentioned by the EDPAF, the authority of guidelines and procedures is secondary to the standards themselves.

The relationship between Information Systems Auditing Standards and other auditing standards: The information systems auditing standards promulgated by the EDPA Foundation are intended to supercede auditing standards developed by other professional bodies. However, where there is a situation when a conflict is perceived to exist between the Standards of EDPA Foundation and any other professional body, it is the responsibility of the EDPA Association Foundation to use the professional judgment to resolve the matter.

GENERAL STANDARDS FOR INFORMATION SYSTEMS AUDITING

EDP Auditors foundation has stated that the following ten standards are applicable to Information Systems auditing:
Independence

General Standard No. 1

Attitude and Appearance: In all matters related to auditing, the information systems auditor is to be independent of the auditee in attitude and appearance.

General Standard No.2

Organisational Relationship- The information systems audit function is to be sufficiently independent of the area being audited to permit objective completion of the audit.

General Standard No.3

Code of Professional ethics - The information systems auditor is to adhere to the Code of Professional Ethics of the EDP Auditors Foundation.

Technical competence

General Standard No.4

Skills and knowledge - The information systems auditor is to be technically competent, possessing the skills and knowledge necessary in the performance of the auditor’s work.

General standard No.5

Continuing Professional Education - The information systems auditor is to maintain technical competence through appropriate continuing education.
Performance of work

General Standard No. 6

Planning and Supervision: - Information Systems audits are to be planned and supervised to provide assurance that audit objectives are achieved and compliance with these standards is met.

General Standard No. 7

Evidence Requirement - During the course of the audit, the information systems auditor is to obtain evidence of a nature and sufficiency to support findings and conclusions reported.

General Standard No. 8

Due Professional care - Due professional care is to be exercised in all aspects of the information systems auditor's work, including observance of applicable auditing standards.

Reporting

General Standard No. 9

Reporting of Audit Coverage - In preparing reports, the information systems auditor is to state the objectives of the audit, the period of coverage and the nature and extent of the audit work performed.
General Standard No.10

Reporting of Findings and conclusions - In preparing reports, the information systems auditor is to state findings and conclusions concerning the audit work performed and any reservations or qualifications that the auditor has with respect to the audit.

The effective date of the standards is from January 1, 1988.

The two statements on independence issued by the Board of EDPA Foundation are effective from 1st July 1989.

Statement No.1 deals with with independence, attitude and appearance - organisational relationship.

It lays down the following:

(a) Information systems auditor should have an independent attitude towards audit.

(b) If the auditor's independence is impaired, the auditor should not participate in the audit. The auditor's independence is deemed to have been impaired if the auditor has expectation of financial gain or any other advantage due to his influence as an auditor.

(c) Perception of auditor's independence could affect the acceptance of auditor's work. For example, if the auditor becomes aware that a situation or relationship is perceived to impair his independence the
auditor is expected to inform the auditee management as early as possible of the perceived impairment.

(d) An auditor should be organisationally independent of the area being audited to ensure that the audit is objective and fair.

(e) When the auditor’s independence is impaired and if he continues to be associated with the audit a disclosure needs to be made.

(f) Independence of the auditor needs to be continuously assessed by the auditor and management.

(g) The auditor’s work and report should represent a discharge of professional responsibility which exemplifies integrity and objectivity.

Statement No.2

This statement deals with involvement in the systems development process.

This statement provides definition for the systems:

(a) Application systems
(b) Systems development process
(c) Application development review

This statement lays down that

(a) the Auditor should maintain an attitude and appearance of independence in conducting application development review.

(b) The auditor should be independent of the project team. However, the auditor may recommend control and other systems inherent without impairing his independence.
(c) The performance of application development review does not impair the auditor’s ability to perform an independent evaluation of the application after its implementation;

(d) The independence of the auditor may be impaired if the auditor becomes actively involved in the design and implementation of the application system; example, by becoming a decision-making member of the project team.

(e) The auditor’s involvement merely as a member of the Project Team (not as a decision making member) in the design and implementation of audit tools and techniques, does not impair the auditor’s independence.

Statement Nos. 3, 4, 5, 6 and 8 deal with performance of work.

Statement No.3

Becomes effective from 1st July 1991. This statement deals with "evidence requirement" which defines evidence as information used by the auditor to meet audit objectives. The nature of information used as evidence should be relevant and reliable; it should also be sufficient to form an opinion of support findings and conclusions.

Evidence is relevant if it has a logical relationship to the findings and conclusion.

Evidence is reliable if in the auditor’s opinion it is valid, objective and supportable.
There are various types of evidences which include physical evidence, documentary evidence, representations and analysis.

Evidence should be sufficient to support the auditor's findings and conclusions in a computerised environment. A mere programme listing is not sufficient evidence to verify that it represents the actual programme used in a production-run. If sufficient evidence is not obtainable the auditor should disclose this fact. Procedures used to collect evidence include enquiry, observation, inspection, confirmation and re-performance. These procedures may be manually audited procedures or computer-assisted audit techniques (CAAT).

Evidence gathered should be properly documented and organised to support audit findings.

Statement No.4

Due professional care: The statement is effective from 1st July 1991. "Due care" is defined as that level of diligence which a prudent person would exercise in a given set of circumstances. "Due professional care" applies to an individual who professes to exercise a special skill such as information systems auditing.

"Due professional care" requires the individual to exercise that skill to a level commonly possessed by practitioners of that speciality.

"Due professional care" does not imply that the professional is infallible. If in spite of exercise of "due professional care" and integrity an incorrect conclusion is drawn and subsequently it is discovered that the conclusion is incorrect, it does not
indicate inadequate professional judgment or lack of diligence on the part of the auditor.

Due professional care includes:

(i) Evaluation of audit risk;
(ii) Formulation of audit objectives;
(iii) Establishment of audit scope;
(iv) Selection of audit tests;
(v) Evaluation of test results;

The auditor should not accept an assignment unless adequate skills, knowledge and other resources are available to complete the assignment in a manner expected of a professional.

The fact that the auditor has not complied with professional standards, the auditor should disclose the circumstances under which it was done.

Statement No.5

The use of risk assessment in auditing:

The statement is effective from 1st November 1992. The statement defines the terms, risk exposure and risk assessment as follows:

"Risk... The possibility of an act or event occurring that would have an adverse effect on the organisation and its information systems"
Exposure: The potential loss to an area due to the occurrence of an adverse event....Exposure can be reduced by implementation of properly designed controls.

Risk assessment

A process used to identify and evaluate risks and their potential impact. The statement lays down that the auditor should use risk assessment techniques in developing overall audit plan and in planning specific audits. The auditor should document risk assessment methodology used for specific audit. As no single risk assessment methodology is appropriate for all situations the auditor should re-evaluate the appropriateness of the particular methodology periodically.

Statement No.6

Audit documentation - The statement is effective from 1st November 1992. Documentation is a record of audit work performed and the evidence gathered. Documentation should include details of record of planning and preparation, audit programme, audit steps, audit findings, report and auditee’s responses. The extent of auditor's documentation would include:

i. Auditor’s understanding of the area to be audited and its environment.

ii. Auditor’s understanding of the information processing systems and the internal control environment.

iii. Documentation should include information that is required by law or by any other statutory agency any applicable standards.

Documentation regarding audit findings and conclusions should be organised and stored and secured in a manner that is appropriate for the media on which it is retained.
Deals with audit considerations for irregularities. The statement is effective from 1st September, 1993. The statement defines irregularities "as intentional violations of established management policy or wilful mis-statements or omissions of information of the area under audit or the organisations...... Irregularities include but are not limited to, deliberate circumvention of controls with the intent to conceal the purported commission of irregularities, fraud, unauthorised use of assets or services and abetting or helping to conceal these type of activities.

The statement lays down that it is the responsibility of the management to have an effective system of internal controls to provide a reasonable assurance of preventing or detecting irregularities.

The auditor should assess the risk of occurrences of irregularities connected with the area under audit. While preparing an assessment the auditor should consider:

i. Organisational characteristics
ii. The types of assets held
iii. The system of internal controls
iv. Applicable legal requirements
v. Basis of risk assessment

The auditor has the responsibility to such audit tests which would reasonably help to detect irregularities that could have a significant impact on the area under audit.
Audit cannot guarantee that irregularities will be detected. The detection of irregularities should be communicated to persons at the appropriate level in the organisation. Further, if the auditor discovers fraudulent activities, he is required to report to appropriate Government agencies.

**Reporting: Statement No.7**

Deals with Audit Reports and is effective from 1st September 1993. The statement defines the report as a formal means of communicating the objectives of the audit, audit scope and the findings and conclusions.

If any audit objective set out in the report was not met the auditor is expected to disclose this in the report. The report should identify specific professional standards used in performing the audit and also report any professional standard which should have been used, was not used.

The report should include all significant audit findings.

**ISO STANDARDS**

Standards issued by "International Organisation for Standards" (ISO):-

ISO has come out with standards for products. There are specific guidelines given for the procedures to be adopted for obtaining a certificate under ISO. To get international recognition for the products, it has been a prestige issue for various organisations whether it be for products or for services to obtain a certificate under ISO 9000.
It is of interest to note that ISO 9000 in part III provides guidelines for the application of ISO 9001 to the development, supply and maintenance of software. It has been recognised that "process of development and maintenance of software is different from that of most other types of industrial products. In such a rapidly evolving technology field, it has been found necessary to provide additional guidance for quality systems where software products are involved taking into account the present state of the technology". ISO 9000-3 deals with situations where specific software is developed as part of a contract according to the purchaser's specifications.

ISO 9000-3 is intended to provide demonstration of a software supplier's capability to develop, supply and maintain software products. In this connection, definitions provided in the guidelines are important and they are reproduced below:

Software item

Development

Phase

Verification

Validation

Para 4.1.1.1 defines quality policy. "The supplier's management shall define and document its policy and objectives for, and commitment to quality. The supplier shall ensure that this policy is understood, implemented and maintained at all levels in the organisation".

Paragraph 4.1.1.2.1 describes the responsibility and authority of the personnel, who manage, perform and verify work affecting quality.
Paragraph 4.1.2 lays down the purchaser's management responsibility. Paragraph 4.1.2 is of particular importance. It mentions that the purchaser should co-operate with the supplier to provide all necessary information in a timely manner and resolve pending items.

The purchaser should assign a representative with the responsibility for dealing with the supplier on contractual matters. This representative should have the authority commensurate with the need to deal with contractual matters which include, but are not limited to the following:

a) Defining the purchaser's requirements to supplier
b) Answering questions from the supplier
c) Approving the supplier's proposals
d) Concluding agreements with the supplier
e) Ensuring the purchaser's organisation observes the agreements made with the supplier;
f) Defining acceptance criteria and procedures
g) Dealing with the purchaser-supplied software items that are found unsuitable for use.

Paragraph 4.2.1 generally gives the description of the quality system. The supplier should establish and maintain a documented quality system. The quality system should be an integrated process throughout the entire life cycle, thus ensuring that quality is being built in as development progresses rather than being distributed at the end of the process. Problem prevention should be emphasised...
rather than depending on correction after occurrence. The supplier should ensure the effective implementation of the documented quality system.

Paragraph 4.3 is of particular relevance to the research topic. It deals with internal quality system audits. It is as follows:

"The supplier shall carry out a comprehensive system of planned and documented internal quality (system) audits to verify whether quality activities comply with planned arrangements and to determine the effectiveness of the quality system". Audits shall be scheduled on the basis of the status and importance of the activity. "The audits and follow-up actions shall be carried out and brought to the attention of the personnel having responsibility in the area audited. The management personnel responsible for the area shall take timely corrective action on the deficiencies found by the audit".

Paragraph 4.4 deals with corrective action:

"The supplier shall establish, document and maintain procedures for

a) Investigating the cause of non-conforming product and the corrective action needed to prevent recurrence;

b) Analysing all processes, work operations, concessions, quality records, service reports and customer complaints to detect and eliminate potential causes of non-conforming product

c) Initiating preventive actions to deal with problems to a level corresponding to the risks encountered;
d) Applying controls to ensure that corrective actions are taken and that they are effective.

e) Implementing and recording changes in procedures resulting from corrective action.

Paragraph deals with quality of system–life-cycle activities. The major points and activities listed are:

i. Contract review

ii. Purchaser requirement specification

iii. Development planning

iv. Quality planning

v. Design and implementation

vi. Testing and validation

vii. Acceptance

viii. Replication, delivery and installation

ix. Maintenance

The guidelines specify very clearly the various procedures to be strictly adhered to under each of the above-mentioned items. Of particular importance to the auditor are the paragraphs dealing with testing and validation.

Paragraph 5.7.3 deals with the aspects for which special attention should be paid:

a) The test results should be recorded as defined in the relevant specification.
b) Any discovered problems and their possible impacts to any other parts of the software should be noted and those responsible notified so the problems can be tracked until they are solved.

c) Areas impacted by any modifications should be identified and retested.

d) Test adequacy and relevancy should be evaluated;

e) The hardware and software configuration should be considered and documented.

It is specifically mentioned that the supplier should validate the operation of the software as a complete product.

Paragraph 6 deals with quality system-- supporting activities. It deals with the following aspects and lay down the procedure to be adhered to under each head:

a) Configuration management

b) Change control

c) Document control

d) Quality records

e) Measurement of products

It further deals with rules, practices and conventions and tools and techniques to be followed.

ANALYSIS OF OFFICIAL PRONOUNCEMENTS

Professional bodies like AICPA, IAA and EDPAA disclose that auditors have a special responsibility while auditing in a computerised environment.
SPECIFIC STANDARDS WHICH NEED TO BE ADHERED TO

The Institute of Chartered Accountants, we reliably learn, are in the process of providing guidelines which would eventually be formulated as standards. With globalisation and liberalisation policies of our Government, import as also export of software as also hardware, which is already on the increase, would be reaching a peak very soon.

In view of ISO 9000-3 prescribed for software development organisations would be expected to conform to the same and obtain certification. It is of great importance to note that it is expected that there has to be an internal audit of the software development.

It should not be mistaken that quality assurance for software is needed only in cases of export. ISO 9000-3 lays down the concept that software is a produce and like other products it is necessary to maintain quality. Therefore, it is of paramount importance to take cognisance of the fact that awareness has been created that audit should be performed of the software before it becomes marketable product.

In these circumstances, the auditors duty and responsibility is of great importance for the implementation of the software in an organisation.

PROFESSIONAL PRONOUNCEMENTS IN INDIA

The Institute of Chartered Accountants of India (ICAI) issues different statements from time to time on specific matters of importance to its members. This has affected the working of the auditors in India. The statement of Audit Practices
issued by ICAI sets out practices which are generally obtaining in other countries and which the Council considers desirable in the light of prevailing circumstances of India.

The provisions of the statement of Accounting Procedures issued in 1979 while explaining the scope and functions of the Accounting Standards Board has clarified that in the initial years the Standards will be recommendatory in character. It is accepted that once a general awareness for the need and utility of the standards has been agreed, steps will be taken to enforce compliance with them. It states, "that while discharging their functions, it will be the duty of the Members of the Institute to ensure that the accounting standards are implemented in the presentation of financial statements covered by their Audit Reports. In the event of any deviation from the standards it will also be their duty to make adequate disclosures in their Reports so that the users of such statements may be aware of such deviation". The Institute of Chartered Accountants of India has issued a statement of basic principles which govern the audit. It lays down various principles which include:

i. Integrity, objectivity and independence
ii. Confidentiality
iii. Skills and competence;
iv. Documentation;
v. Planning
vi. Audit evidence

The statement on Audit Practices was issued in 1964, for which a third edition was brought in 1977. In chapter II it deals with general considerations; the concept of materiality is discussed. It is mentioned that "Materiality" is also a matter of
importance in relation to items in the balance sheet. It is added that "it is difficult to lay down any standards by which materiality can be judged. It is a matter in which the decision is arrived at on the basis of the auditor's professional experience and judgment".

Para 2.10 deals with the objectives. It lays down that the auditors objective both in regard to assets has to satisfy that they exist and belong to the client that they are recorded in the accounts. It is accepted that the audit procedure should be devised accordingly".

Chapter 2.17 which deals with that of computers, lays down:

"While the principles and concepts of audit are applicable to computer-based accounting systems to the same degree as to manual systems the auditing techniques and procedures will need modification depending upon:

a) the extent to which electronic data processing (EDP) are used to compile and analyse accounting records;

b) the system of internal control in existence in the company in regard to:
   (i) flow of correct and complete data to the processing centre
   (ii) processing, analysis and reporting tasks undertaken in the installation and finally
   (iii) the impact of computer-based accounting system on the audit control that could otherwise be expected to exist in an entirely manual system."
The guideline proceeds to explain the fundamental concepts of a client who may be using his own computer-system or a service bureau for obtaining management information. It will be of relevance to reproduce para "A".

"A. Where a computer is used for compiling accounting records if the system developed is such a ‘print out’ (i.e. a visible record) is available at every stage, as in a manual system (e.g. Day books, statement of Journal entries, Ledger, Trial Balance and so on) the audit trail remains complete and free of the EDP influence. This gives the auditor all the freedom he needs to determine the extent and manner of verification of transactions, taking into account the internal check and control that exists within the organisation but outside of the Data Processing Centre. Nevertheless it would be necessary for the auditor to make enquiries and particularly satisfy himself on the following points:

a) Adequate procedures exist to ensure that the data transmitted is correct and complete.

(b) Cross verification of records, reconciliation statements and control systems between primary and subsidiary ledgers do exist and are operative and that accuracy of computer compiled records are not assumed.

Developments in Data Processing in India in so far as accounting records are concerned, have not yet materially threatened the audit trail since extensive ‘print outs’ are made available, but the future points to the inevitable need for the auditor to acquire newer skills to deal with a computer environment when audit trails as are now known and accepted, might become expensive and even anachronistic.
Where audit trails have been affected, the auditor will find that "visibility" has become poorer. This will force upon him the need to acquire skills to verify "invisible records". Depending upon the degree of "visibility" he can adopt one or two courses.

(1) Leave the processing part of the computer applications, but verify the systems and controls that exist:

(a) to ensure correct and complete data being made available for processing;
(b) to provide for error detection and correction
(c) to restart compilation interrupted by power, mechanical or processing failures without duplicating the entries and records;
(d) to ensure checks and controls on output or accuracy and completeness;
(e) to provide adequate data security against fire and other calamities, wrong processing, fraud;
(f) to prevent unauthorised amendments, corrections and processing instructions (Programmes) operating instructions as sequences; and
(g) to keep custody of the data files.

Many more "peripheral" checks may be added but the above would be the principal ones. This approach is referred to as auditing around the computer.

(2) It is possible for the auditor to take the further logical steps to verify the programmes themselves and technically satisfy himself that systems, checks, controls, error detection and data security procedures are satisfactory. The auditor could also use test-checks to test the system in operation and ask for special print outs by making use of programming facilities available within the
installation or at his command to improve the quality of his own audit and reduce time spent on detailed verification of transactions. This approach is referred to as auditing through the computer.

Given the necessary skills, an auditor could, on request, audit the computer system itself.\(^1\) A study of the various standards pronounced by different authorities, discloses that all of them uniformly deal with

1. Independence
2. Due professional care
3. Professional competence
4. Planning the audit
5. Understanding Internal control
6. Evidence collection
7. Reporting