UNIT IV

AUDITING TECHNIQUES -II

LEARNING OBJECTIVES

➢ *To define computer control procedures*

➢ *To discuss different types of group for computer control procedures*

➢ *To explain general controls*

➢ *To explain application controls*

COMPUTER CONTROL PROCEDURES

❑ *Computers have been so thoroughly integrated into the business world that some times it is difficult to categorize as either manual or computerised. In many audit engagements, procedures designed to acquire an understanding of internal control and conduct tests of controls require examination both of records and documents produced manually and by the computer. In prior years, it was considered unwise to ignore computer processing; today it is often impossible*

COMPUTER CONTROL PROCEDURES

Effects of computers on Internal Controls:

- ➤ *Separation of duties*
- ➤ *Delegation of authority and responsibility*
- ➤ *Competent and trustworthy personnel*
- ➤ *System of authorizations*
- ➤ *Adequate documents and records*
- ➤ *Physical control over asset and records*
- ➤ *Adequate management supervision*
- ➤ *Independent check on performance*
- ➤ *Comparing recorded accountability with assets*

COMPUTER CONTROL PROCEDURES

❑ *Auditors find it convenient to divide computer control procedures into two groups e.g.*

A- General Controls

B- Application Controls

COMPUTER CONTROL PROCEDURES

General controls are defined as follows

➤ *The plan of organization and operation of computer activity*

➤ *The procedures for documenting, reviewing, testing, and approving systems or programs and changes thereto*

➤ *Controls built into the equipment by the manufacturer(Commonly referred to as ''hardware'' controls)*

➤ *Controls over access to equipment and data files*

COMPUTER CONTROL PROCEDURES

❑ *General controls:*

➢ *Organization and operation controls*

➢ *Systems development and documentations controls*

➢ *Access controls*

➢ *Data and procedural controls*

COMPUTER CONTROL PROCEDURES

❑ *Organization and operation controls*

Organization and operation controls consist of the general plan designed to effect a smooth operation, accomplish the assigned tasks, and minimize the opportunity for errors or fraud in the system

Example: Controls such as proper job segregation, periodic rotation of duties, and effective operational supervision are conceptually the same as those in manual system

COMPUTER CONTROL PROCEDURES

❑ *Systems development and documentations controls*

Documentation controls consist of procedures designed to ensure the integrity of computer storage devices and systems documentation

Example:

Non resident files should be stored in a secure, fireproof storage area under the strict control of a person charged with these responsibilities, backup copies of critical files should be stored at off-site location

COMPUTER CONTROL PROCEDURES

❑ *Access controls*

Access controls are designed to help prevent or detect errors or fraud caused by(a) improper use or manipulation of data files(b) unauthorised or incorrect use of a computer programs, or(c) improper use of computer resources or a combination of these

Example: Access to computer hardware should be limited to computer operators. Physical security device can be used to partially implemented this control. In addition, review of utilization reports and console logs can be made on a regular basis

COMPUTER CONTROL PROCEDURES

❑ *Data and procedural controls*

Data and procedural controls provide a framework for controlling daily operations and establishing safeguards against processing errors. They are designed to ensure prompt and accurate processing data

Example:

Internal auditors or some other independent group within the organization should review and evaluate proposed systems at critical stages of development

COMPUTER CONTROL PROCEDURES

Application controls are defined as follows

Application controls are more specific. Their functions is to provide reasonable assurance that the recording, processing , and reporting of specific data processing applications(e.g. credit sales and cash receipts) are properly performed

❑ *Application Controls*

➢ *Input controls*

➢ *Processing controls*

➢ *Output controls*

COMPUTER CONTROL PROCEDURES

❑*Input controls*

Input controls are designed to provide reasonable assurance that data received for processing by computers have been properly authorized, converted into machine-sensible form and identified, and that data(including data transmitted over communication lines) have not been lost, suppressed, added, duplicated, or otherwise improperly changed

COMPUTER CONTROL PROCEDURES

❑ *Processing controls*

Processing controls are designed to provide reasonable assurance that computer processing has been performed as intended for the particular application

❑ *Output Controls*

Output controls are designed to assure the accuracy of the processing result(such as account listings or displays, reports, magnetic files, invoices, or disbursement checks)and to assure that only authorised personnel receive the output

APPROPRIATE CONTROLS FOR ONLINE SYSTEM

❑ *For an online system, access to the terminal should be controlled through use of periodically changed passwords. Unsuccessful attempts to access the system should be monitored*

❑ *In addition, this type of system should*

➢ *Permit only terminal operators to enter or recall data. No terminal operator should have access to files or programs*

APPROPRIATE CONTROLS FOR ONLINE SYSTEM

➢ *Contain appropriate edit steps in the computer programs so that unauthorized or improper transactions are rejected. Control totals of transactions should also be part of the computer programs. These control totals should be compared with similar totals generated when files are updated*

APPROPRIATE CONTROLS FOR ONLINE SYSTEM

❑ *Control consideration in minicomputer system:*

The controls that auditors should evaluate in minicomputer system depend on the type of system in use. Some mini computer system operate from central computer with data stored in a central location.

➢ *Each mini computer in the system updates the central database, as well as maintains files in its own area. In this regard, a minicomputer system has some of the same characteristics as online systems with terminals at various locations, a significant difference being the processing and data storage capability of a minicomputer*

APPROPRIATE CONTROLS FOR ONLINE SYSTEM

❑*Control consideration in minicomputer system:*

Microcomputer have some of the same characteristics as independent minicomputers; the equipment and files are independent of a central processor(although they may be connected in a network). Given these characteristics, independent minicomputers and microcomputers have special control problems that may not exist in mainframe installation

APPROPRIATE CONTROLS FOR ONLINE SYSTEM

➢ *Example:*

Lack of segregation of duties among programming, operations, and control of data within the computer department

➢ *Example:*

Inadequate processing controls in programs furnished by vendors, especially controls applicable to online processing

➢ *Example: Access to data files and programs by a number of individual*

QUIZ- 4

❑ *Write True false for the following statements:*

Q1- Auditors find it convenient to divide computer control procedures into one group

    (a) True or   (b) False

Q2- Data and procedural controls provide a framework for controlling daily operations and establishing safeguards against processing errors

    (a) True or   (b) False

Q3- Appropriate control for online systems access to the terminal should be controlled through use of periodically changed passwords

    (a) True or   (b) False

QUIZ- 4

❑ *Tick the correct answer of the followings:*

Q4- How many groups are find in computer control procedures

    (a) Two   *(b) Five*   *(c) Six*

Q5- How many groups are find in general controls

    (a) Five   *(b) Eight*   *(c) Four*

Q6 Access controls are designed to help prevent or detect errors or fraud caused by:

   (a) Improper use or manipulation of data files (b) Correct use of a computer programs (c) Proper use of computer resources

QUIZ- 4

❑ *Fill in the blanks of the followings:*

Q7- Computers have been so thoroughly----------into the business world that some times it is difficult to categorize as either manual or computerised.

Q8- General controls are defined as the plan of -------------- and operation of computer activity

Q9- Organization and --------- controls consist of the general plan designed to effect a smooth operation, accomplish the assigned tasks, and minimize the opportunity for errors or fraud in the system

Q10- Documentation controls consist of procedures designed to ensure the-------of computer storage devices and systems documentation

HOME ASSIGNMENT

Q1-*What do you mean by computer control procedures*

Q2- Explain the effects of computers on Internal Controls:

Q3- Clearly explain how many groups of computer control procedures

Q4- Clearly explain appropriate controls for online system

QUESTIONS

❑ *Fill in the blanks of the followings:*

Q1- Computers have been so thoroughly----------into the business world that some times it is difficult to categorize as either manual or computerised.

Q2- General controls are defined as the plan of ------------- and operation of computer activity

Q3- Organization and --------- controls consist of the general plan designed to effect a smooth operation, accomplish the assigned tasks, and minimize the opportunity for errors or fraud in the system

Q4- Documentation controls consist of procedures designed to ensure the-------of computer storage devices and systems documentation

QUESTIONS

❑ *Tick the correct answer of the followings:*

Q5- How many groups are find in computer control procedures

 (a) Two   *(b) Five*   *(c) Six*

Q6- How many groups are find in general controls

 (a) Five   *(b) Eight*   *(c) Four*

Q7 Access controls are designed to help prevent or detect errors or fraud caused by:

 (a) Improper use or manipulation of data files *(b) Correct use of a computer programs (c) Proper use of computer resources*

QUESTIONS

❑ *Write True false for the following statements:*

Q8- Auditors find it convenient to divide computer control procedures into one group

(a) True or   (b) False

Q9- Data and procedural controls provide a framework for controlling daily operations and establishing safeguards against processing errors

(a) True or   (b) False

Q10- Appropriate control for online systems access to the terminal should be controlled through use of periodically changed passwords

(a) True or   (b) False