

CEBU CPAR CENTER

Mandaue City, Cebu

AUDITING THEORY

AUDITING IN A COMPUTER INFORMATION SYSTEMS (CIS) ENVIRONMENT

Related PSAs/PAPSSs: PSA 401; PAPS 1001, 1002, 1003, 1008 and 1009

PSA 401 – Auditing in a Computer Information Systems (CIS) Environment

1. Which statement is incorrect when auditing in a CIS environment?
 - a. A CIS environment exists when a computer of any type or size is involved in the processing by the entity of financial information of significance to the audit, whether that computer is operated by the entity or by a third party.
 - b. The auditor should consider how a CIS environment affects the audit.
 - c. The use of a computer changes the processing, storage and communication of financial information and may affect the accounting and internal control systems employed by the entity.
 - d. **A CIS environment changes the overall objective and scope of an audit.**
2. Which of the following standards or group of standards is mostly affected by a computerized information system environment?
 - a. General standards
 - b. Second standard of field work
 - c. Reporting standards
 - d. **Standards of fieldwork**
3. Which of the following is least considered if the auditor has to determine whether specialized CIS skills are needed in an audit?
 - a. The auditor needs to obtain a sufficient understanding of the accounting and internal control system affected by the CIS environment.
 - b. The auditor needs to determine the effect of the CIS environment on the assessment of overall risk and of risk at the account balance and class of transactions level.
 - c. Design and perform appropriate tests of controls and substantive procedures.
 - d. **The need of the auditor to make analytical procedures during the completion stage of audit.**
4. It relates to materiality of the financial statement assertions affected by the computer processing.
 - a. Threshold
 - b. Relevance
 - c. Complexity
 - d. **Significance**
5. Which of the following least likely indicates a complexity of computer processing?
 - a. Transactions are exchanged electronically with other organizations without manual review of their propriety.
 - b. The volume of the transactions is such that users would find it difficult to identify and correct errors in processing.
 - c. The computer automatically generates material transactions or entries directly to another applications.
 - d. **The system generates a daily exception report.**
6. The nature of the risks and the internal characteristics in CIS environment that the auditors are mostly concerned include the following except:
 - a. Lack of segregation of functions.
 - b. Dependence of other control over computer processing.
 - c. Lack of transaction trails.
 - d. **Cost-benefit ratio.**
7. Which of the following is least likely a risk characteristic associated with CIS environment?
 - a. Errors embedded in an application's program logic maybe difficult to manually detect on a timely basis.
 - b. Many control procedures that would ordinarily be performed by separate individuals in manual system maybe concentrated in CIS.
 - c. The potential unauthorized access to data or to alter them without visible evidence maybe greater.
 - d. **Initiation of changes in the master file is exclusively handled by respective users.**
8. Which of the following significance and complexity of the CIS activities should an auditor least understand?
 - a. The organizational structure of the client's CIS activities.
 - b. Lack of transaction trails.
 - c. The significance and complexity of computer processing in each significant accounting application.
 - d. **The use of software packages instead of customized software.**

PAPS 1001 – CIS Environments – Stand-Alone Personal Computers

9. Which statement is correct regarding personal computer systems?
 - a. **Personal computers or PCs are economical yet powerful self-contained general purpose computers consisting typically of a central processing unit (CPU), memory, monitor, disk drives, printer cables and modems.**
 - b. Programs and data are stored only on non-removable storage media.
 - c. Personal computers cannot be used to process accounting transactions and produce reports that are essential to the preparation of financial statements.
 - d. Generally, CIS environments in which personal computers are used are the same with other CIS environments.
10. A personal computer can be used in various configurations, including
 - a. A stand-alone workstation operated by a single user or a number of users at different times.
 - b. A workstation which is part of a local area network of personal computers.
 - c. A workstation connected to a server.
 - d. **All of the above.**
11. Which statement is incorrect regarding personal computer configurations?
 - a. The stand-alone workstation can be operated by a single user or a number of users at different times accessing the same or different programs.
 - b. **A stand-alone workstation may be referred to as a distributed system.**
 - c. A local area network is an arrangement where two or more personal computers are linked together through the use of special software and communication lines.
 - d. Personal computers can be linked to servers and used as part of such systems, for example, as an intelligent on-line workstation or as part of a distributed accounting system.
12. Which of the following is the least likely characteristic of personal computers?
 - a. They are small enough to be transportable.
 - b. **They are relatively expensive.**
 - c. They can be placed in operation quickly.
 - d. The operating system software is less comprehensive than that found in larger computer environments.
13. Which of the following is an inherent characteristic of software package?
 - a. **They are typically used without modifications of the programs.**
 - b. The programs are tailored-made according to the specific needs of the user.
 - c. They are developed by software manufacturer according to a particular user's specifications.
 - d. It takes a longer time of implementation.
14. Which of the following is not normally a removable storage media?

a. Compact disk	c. Tapes
b. Diskettes	d. Hard disk
15. It is a computer program (a block of executable code) that attaches itself to a legitimate program or data file and uses its as a transport mechanism to reproduce itself without the knowledge of the user.

a. Virus	c. System management program
b. Utility program	d. Encryption
16. Which statement is incorrect regarding internal control in personal computer environment?
 - a. Generally, the CIS environment in which personal computers are used is less structured than a centrally-controlled CIS environment.
 - b. Controls over the system development process and operations may not be viewed by the developer, the user or management as being as important or cost-effective.
 - c. In almost all commercially available operating systems, the built-in security provided has gradually increased over the years.
 - d. **In a typical personal computer environment, the distinction between general CIS controls and CIS application controls is easily ascertained.**
17. Personal computers are susceptible to theft, physical damage, unauthorized access or misuse of equipment. Which of the following is least likely a physical security to restrict access to personal computers when not in use?
 - a. Using door locks or other security protection during non-business hours.
 - b. Fastening the personal computer to a table using security cables.
 - c. Locking the personal computer in a protective cabinet or shell.
 - d. **Using anti-virus software programs.**

18. Which of the following is not likely a control over removable storage media to prevent misplacement, alteration without authorization or destruction?
- Using cryptography, which is the process of transforming programs and information into an unintelligible form.
 - Placing responsibility for such media under personnel whose responsibilities include duties of software custodians or librarians.
 - Using a program and data file check-in and check-out system and locking the designated storage locations.
 - Keeping current copies of diskettes, compact disks or back-up tapes and hard disks in a fireproof container, either on-site, off-site or both.
19. Which of the following least likely protects critical and sensitive information from unauthorized access in a personal computer environment?
- Using secret file names and hiding the files.
 - Keeping of back up copies offsite.
 - Employing passwords.
 - Segregating data into files organized under separate file directories.
20. It refers to plans made by the entity to obtain access to comparable hardware, software and data in the event of their failure, loss or destruction.
- Back-up
 - Encryption
 - Anti-virus
 - Wide Area Network (WAN)
21. The effect of personal computers on the accounting system and the associated risks will least likely depend on
- The extent to which the personal computer is being used to process accounting applications.
 - The type and significance of financial transactions being processed.
 - The nature of files and programs utilized in the applications.
 - The cost of personal computers.
22. The auditor may often assume that control risk is high in personal computer systems since , it may not be practicable or cost-effective for management to implement sufficient controls to reduce the risks of undetected errors to a minimum level. This least likely entail
- More physical examination and confirmation of assets.
 - More analytical procedures than tests of details.
 - Larger sample sizes.
 - Greater use of computer-assisted audit techniques, where appropriate.

PAPS 1002 – CIS Environments – On-Line Computer Systems

23. Computer systems that enable users to access data and programs directly through workstations are referred to as
- On-line computer systems
 - Database management systems (DBMS)
 - Personal computer systems
 - Database systems
24. On-line systems allow users to initiate various functions directly. Such functions include:
- Entering transactions
 - Making inquiries
 - Requesting reports
 - Updating master files
- I, II, III and IV
 - I, II and III
 - I and II
 - I and IV
25. Many different types of workstations may be used in on-line computer systems. The functions performed by these workstations least likely depend on their
- Logic
 - Transmission
 - Storage
 - Cost
26. Types of workstations include General Purpose Terminals and Special Purpose Terminals. Special Purpose Terminals include
- Basic keyboard and monitor
 - Intelligent terminal
 - Point of sale devices
 - Personal computers
27. Special Purpose Terminal used to initiate, validate, record, transmit and complete various banking transactions
- Automated teller machines
 - Point of sale devices
 - Intelligent terminal
 - Personal computers
28. Which statement is incorrect regarding workstations?
- Workstations may be located either locally or at remote sites.
 - Local workstations are connected directly to the computer through cables.
 - Remote workstations require the use of telecommunications to link them to the computer.

- d. Workstations cannot be used by many users, for different purposes, in different locations, all at the same time.
29. On-line computer systems may be classified according to
- How information is entered into the system.
 - How it is processed.
 - When the results are available to the user.
 - All of the above.
30. In an on-line/real time processing system
- Individual transactions are entered at workstations, validated and used to update related computer files immediately.
 - Individual transactions are entered at a workstation, subjected to certain validation checks and added to a transaction file that contains other transactions entered during the period.
 - Individual transactions immediately update a memo file containing information which has been extracted from the most recent version of the master file.
 - The master files are updated by other systems.
31. It combines on-line/real time processing and on-line/batch processing.
- On-Line/Memo Update (and Subsequent Processing)
 - On-Line Downloading/Uploading Processing
 - On-Line/Inquiry
 - On-Line/Combined Processing
32. It is a communication system that enables computer users to share computer equipment, application software, data and voice and video transmissions.
- Network
 - File server
 - Host
 - Client
33. A type of network that multiple buildings are close enough to create a campus, but the space between the buildings is not under the control of the company is
- Local Area Network (LAN)
 - Wide Area Network (WAN)
 - Metropolitan Area Network (MAN)
 - World Wide Web (WWW)
34. Which of the following is least likely a characteristic of Wide Area Network (WAN)?
- Created to connect two or more geographically separated LANs.
 - Typically involves one or more long-distance providers, such as a telephone company to provide the connections.
 - WAN connections tend to be faster than LAN.
 - Usually more expensive than LAN.
35. Gateway is
- A hardware and software solution that enables communications between two dissimilar networking systems or protocols.
 - A device that forwards frames based on destination addresses.
 - A device that connects and passes packets between two network segments that use the same communication protocol.
 - A device that regenerates and retransmits the signal on a network.
36. A device that works to control the flow of data between two or more network segments
- Bridge
 - Router
 - Repeater
 - Switch
37. The undesirable characteristics of on-line computer systems least likely include
- Data are usually subjected to immediate validation checks.
 - Unlimited access of users to all of the functions in a particular application.
 - Possible lack of visible transaction trail.
 - Potential programmer access to the system.
38. Certain general CIS controls that are particularly important to on-line processing least likely include
- Access controls.
 - System development and maintenance controls.
 - Edit, reasonableness and other validation tests.
 - Use of anti-virus software program.
39. Certain CIS application controls that are particularly important to on-line processing least likely include
- Pre-processing authorization.
 - Cut-off procedures.
 - Transaction logs.
 - Balancing.

40. Risk of fraud or error in on-line systems may be reduced in the following circumstances, except
- If on-line data entry is performed at or near the point where transactions originate, there is less risk that the transactions will not be recorded.
 - If invalid transactions are corrected and re-entered immediately, there is less risk that such transactions will not be corrected and re-submitted on a timely basis.
 - If data entry is performed on-line by individuals who understand the nature of the transactions involved, the data entry process may be less prone to errors than when it is performed by individuals unfamiliar with the nature of the transactions.
 - On-line access to data and programs through telecommunications may provide greater opportunity for access to data and programs by unauthorized persons.
41. Risk of fraud or error in on-line computer systems may be increased for the following reasons, except
- If workstations are located throughout the entity, the opportunity for unauthorized use of a workstation and the entry of unauthorized transactions may increase.
 - Workstations may provide the opportunity for unauthorized uses such as modification of previously entered transactions or balances.
 - If on-line processing is interrupted for any reason, for example, due to faulty telecommunications, there may be a greater chance that transactions or files may be lost and that the recovery may not be accurate and complete.
 - If transactions are processed immediately on-line, there is less risk that they will be processed in the wrong accounting period.
42. The following matters are of particular importance to the auditor in an on-line computer system, except
- Authorization, completeness and accuracy of on-line transactions.
 - Integrity of records and processing, due to on-line access to the system by many users and programmers.
 - Changes in the performance of audit procedures including the use of CAAT's.
 - Cost-benefit ratio of installing on-line computer system.

PAPS 1003 – CIS Environments – Database Systems

43. A collection of data that is shared and used by a number of different users for different purposes.
- Database
 - Information file
 - Master file
 - Transaction file
44. Which of the following is least likely a characteristic of a database system?
- Individual applications share the data in the database for different purposes.
 - Separate data files are maintained for each application and similar data used by several applications may be repeated on several different files.
 - A software facility is required to keep track of the location of the data in the database.
 - Coordination is usually performed by a group of individuals whose responsibility is typically referred to as "database administration."
45. Database administration tasks typically include
- Defining the database structure.
 - Maintaining data integrity, security and completeness.
 - Coordinating computer operations related to the database.
 - Monitoring system performance.
 - Providing administrative support.
- All of the above
 - All except I
 - II and V only
 - II, III and V only
46. Due to data sharing, data independence and other characteristics of database systems
- General CIS controls normally have a greater influence than CIS application controls on database systems.
 - CIS application controls normally have a greater influence than general CIS controls on database systems.
 - General CIS controls normally have an equal influence with CIS application controls on database systems.
 - CIS application controls normally have no influence on database systems.
47. Which statement is incorrect regarding the general CIS controls of particular importance in a database environment?
- Since data are shared by many users, control may be enhanced when a standard approach is used for developing each new application program and for application program modification.

- b. Several data owners should be assigned responsibility for defining access and security rules, such as who can use the data (access) and what functions they can perform (security).
 - c. User access to the database can be restricted through the use of passwords.
 - d. Responsibilities for performing the various activities required to design, implement and operate a database are divided among technical, design, administrative and user personnel.
48. These require a database administrator to assign security attributes to data that cannot be changed by database users.
- a. Discretionary access controls
 - b. **Mandatory access controls**
 - c. Name-dependent restrictions
 - d. Content-dependent restrictions.
49. A discretionary access control wherein users are permitted or denied access to data resource depending on the time series of accesses to and actions they have undertaken on data resources.
- a. Name-dependent restrictions
 - b. Content-dependent restriction
 - c. Context-dependent restriction
 - d. **History-dependent restriction**
50. The effect of a database system on the accounting system and the associated risks will least likely depend on:
- a. The extent to which databases are being used by accounting applications.
 - b. The type and significance of financial transactions being processed.
 - c. The nature of the database, the DBMS, the database administration tasks and the applications.
 - d. **The CIS application controls.**
51. Audit procedures in a database environment will be affected principally by
- a. **The extent to which the data in the database are used by the accounting system.**
 - b. The type and significance of financial transactions being processed.
 - c. The nature of the database, the DBMS, the database administration tasks and the applications.
 - d. The general CIS controls which are particularly important in a database environment.

PAPS 1008 – Risk Assessments and Internal Control – CIS Characteristics and Considerations

52. Which statement is incorrect regarding the characteristics of a CIS organizational structure?
- a. Certain data processing personnel may be the only ones with a detailed knowledge of the interrelationship between the source of data, how it is processed and the distribution and use of the output.
 - b. Many conventional controls based on adequate segregation of incompatible functions may not exist, or in the absence of access and other controls, may be less effective.
 - c. Transaction and master file data are often concentrated, usually in machine-readable form, either in one computer installation located centrally or in a number of installations distributed throughout an entity.
 - d. **Systems employing CIS methods do not include manual operations since the number of persons involved in the processing of financial information is significantly reduced.**
53. System characteristics that may result from the nature of CIS processing include, except
- a. Absence of input documents.
 - b. Lack of visible transaction trail.
 - c. Lack of visible output.
 - d. **Difficulty of access to data and computer programs.**
54. The development of CIS will generally result in design and procedural characteristics that are different from those found in manual systems. These different design and procedural aspects of CIS include, except:
- a. Consistency of performance.
 - b. Programmed control procedures.
 - c. Vulnerability of data and program storage media
 - d. **Multiple transaction update of multiple computer files or databases.**
55. Which statement is incorrect regarding internal controls in a CIS environment?
- a. Manual and computer control procedures comprise the overall controls affecting the CIS environment (general CIS controls) and the specific controls over the accounting applications (CIS application controls).

- b. The purpose of general CIS controls is to establish a framework of overall control over the CIS activities and to provide a reasonable level of assurance that the overall objectives of internal control are achieved.
 - c. The purpose of CIS application controls is to establish specific control procedures over the application systems in order to provide reasonable assurance that all transactions are authorized and recorded, and are processed completely, accurately and on a timely basis.
 - d. The internal controls over computer processing, which help to achieve the overall objectives of internal control, include only the procedures designed into computer programs.
56. General CIS controls may include, except:
- a. Organization and management controls.
 - b. Development and maintenance controls.
 - c. Delivery and support controls.
 - d. Controls over computer data files.
57. CIS application controls include, except
- a. Controls over input.
 - b. Controls over processing and computer data files.
 - c. Controls over output.
 - d. Monitoring controls.
58. Which statement is incorrect regarding the review of general CIS controls and CIS application controls?
- a. The auditor should consider how these general CIS controls affect the CIS applications significant to the audit.
 - b. General CIS controls that relate to some or all applications are typically interdependent controls in that their operation is often essential to the effectiveness of CIS application controls.
 - c. Control over input, processing, data files and output may be carried out by CIS personnel, by users of the system, by a separate control group, or may be programmed into application software.
 - d. It may be more efficient to review the design of the application controls before reviewing the general controls.
59. Which statement is incorrect regarding the evaluation of general CIS controls and CIS application controls?
- a. The general CIS controls may have a pervasive effect on the processing of transactions in application systems.
 - b. If general CIS controls are not effective, there may be a risk that misstatements might occur and go undetected in the application systems.
 - c. Manual procedures exercised by users may provide effective control at the application level.
 - d. Weaknesses in general CIS controls cannot preclude testing certain CIS application controls.

PAPS 1009 – Computer-Assisted Audit Techniques (CAATs)

60. The applications of auditing procedures using the computer as an audit tool refer to
- a. Integrated test facility
 - b. Data-based management system
 - c. Auditing through the computer
 - d. Computer assisted audit techniques
61. Which statement is incorrect regarding CAATs?
- a. CAATs are often an efficient means of testing a large number of transactions or controls over large populations.
 - b. To ensure appropriate control procedures, the presence of the auditor is not necessarily required at the computer facility during the running of a CAAT.
 - c. The general principles outlined in PAPS 1009 apply in small entity IT environments.
 - d. Where smaller volumes of data are processed, the use of CAATs is more cost effective.
62. Consists of generalized computer programs designed to perform common audit tasks or standardized data processing functions.
- a. Package or generalized audit software
 - b. Customized or purpose-written programs
 - c. Utility programs
 - d. System management programs
63. Audit automation least likely include
- a. Expert systems.
 - b. Tools to evaluate a client's risk management procedures.
 - c. Manual working papers.
 - d. Corporate and financial modeling programs for use as predictive audit tests.

QUIZZERS

1. An internal auditor noted the following points when conducting a preliminary survey in connection with the audit of an EDP department. Which of the following would be considered a safeguard in the control system on which the auditor might rely?
 - a. Programmers and computer operators correct daily processing problems as they arise.
 - b. **The control group works with user organizations to correct rejected input.**
 - c. New systems are documented as soon as possible after they begin processing live data.
 - d. The average tenure of employees working in the EDP department is ten months.
2. An on-line access control that checks whether the user's code number is authorized to initiate a specific type of transaction or inquiry is referred to as
 - a. Password
 - b. Limit check
 - c. **Compatibility test**
 - d. Reasonableness test
3. A control procedure that could be used in an on-line system to provide an immediate check on whether an account number has been entered on a terminal accurately is a
 - a. Compatibility test
 - b. Hash total
 - c. Record count
 - d. **Self-checking digit**
4. A control designed to catch errors at the point of data entry is
 - a. Batch total
 - b. Record count
 - c. **Self-checking digit**
 - d. Checkpoints
5. Program documentation is a control designed primarily to ensure that
 - a. Programmers have access to the tape library or information on disk files.
 - b. Programs do not make mathematical errors.
 - c. **Programs are kept up to date and perform as intended.**
 - d. Data have been entered and processed.
6. Some of the more important controls that relate to automated accounting information systems are validity checks, limit checks, field checks, and sign tests. These are classified as
 - a. Control total validation routines
 - b. Hash totaling
 - c. Output controls
 - d. **Input validation routines**
7. Most of today's computer systems have hardware controls that are built in by the computer manufacturer. Common hardware controls are
 - a. Duplicate circuitry, echo check, and internal header labels
 - b. Tape file protection, cryptographic protection, and limit checks
 - c. **Duplicate circuitry, echo check, and dual reading**
 - d. Duplicate circuitry, echo check, tape file protection, and internal header labels
8. Computer manufacturers are now installing software programs permanently inside the computer as part of its main memory to provide protection from erasure or loss if there is interrupted electrical power. This concept is known as
 - a. File integrity
 - b. Software control
 - c. Random access memory (RAM)
 - d. **Firmware**
9. Which one of the following represents a lack of internal control in a computer-based information system?
 - a. The design and implementation is performed in accordance with management's specific authorization.
 - b. Any and all changes in application programs have the authorization and approval of management.
 - c. Provisions exist to protect data files from unauthorized access, modification, or destruction.
 - d. **Both computer operators and programmers have unlimited access to the programs and data files.**
10. In an automated payroll processing environment, a department manager substituted the time card for a terminated employee with a time card for a fictitious employee. The fictitious employee had the same pay rate and hours worked as the terminated employee. The best control technique to detect this action using employee identification numbers would be a
 - a. Batch total
 - b. **Hash total**
 - c. Record count
 - d. Subsequent check
11. An employee in the receiving department keyed in a shipment from a remote terminal and inadvertently omitted the purchase order number. The best systems control to detect this error would be
 - a. Batch total
 - b. **Completeness test**
 - c. Sequence check
 - d. Reasonableness test

12. The reporting of accounting information plays a central role in the regulation of business operations. Preventive controls are an integral part of virtually all accounting processing systems, and much of the information generated by the accounting system is used for preventive control purposes. Which one of the following is not an essential element of a sound preventive control system?
- a. Separation of responsibilities for the recording, custodial, and authorization functions.
 - b. Sound personnel policies.
 - c. Documentation of policies and procedures.
 - d. Implementation of state-of-the-art software and hardware.
13. The most critical aspect regarding separation of duties within information systems is between
- a. Project leaders and programmers
 - b. Programmers and computer operators
 - c. Programmers and systems analysts
 - d. Data control and file librarians
14. Whether or not a real time program contains adequate controls is most effectively determined by the use of
- a. Audit software
 - b. An integrated test facility
 - c. A tracing routine
 - d. A traditional test deck
15. Compatibility tests are sometimes employed to determine whether an acceptable user is allowed to proceed. In order to perform compatibility tests, the system must maintain an access control matrix. The one item that is not part of an access control matrix is a
- a. List of all authorized user code numbers and passwords.
 - b. List of all files maintained on the system.
 - c. Record of the type of access to which each user is entitled.
 - d. Limit on the number of transaction inquiries that can be made by each user in a specified time period.
16. Which one of the following input validation routines is not likely to be appropriate in a real time operation?
- a. Field check
 - b. Sign check
 - c. Sequence check
 - d. Redundant data check
17. Which of the following controls is a processing control designed to ensure the reliability and accuracy of data processing?
- | | <u>Limit test</u> | <u>Validity check test</u> |
|----|-------------------|----------------------------|
| a. | Yes | Yes |
| b. | No | No |
| c. | No | Yes |
| d. | Yes | No |
18. Which of the following characteristics distinguishes computer processing from manual processing?
- a. Computer processing virtually eliminates the occurrence of computational error normally associated with manual processing.
 - b. Errors or irregularities in computer processing will be detected soon after their occurrences.
 - c. The potential for systematic error is ordinarily greater in manual processing than in computerized processing.
 - d. Most computer systems are designed so that transaction trails useful for audit do not exist.
19. Which of the following most likely represents a significant deficiency in the internal control structure?
- a. The systems analyst review applications of data processing and maintains systems documentation.
 - b. The systems programmer designs systems for computerized applications and maintains output controls.
 - c. The control clerk establishes control over data received by the EDP department and reconciles control totals after processing
 - d. The accounts payable clerk prepares data for computer processing and enters the data into the computer.
20. Which of the following activities would most likely be performed in the EDP Department?
- a. Initiation of changes to master records.
 - b. Conversion of information to machine-readable form.
 - c. Correction of transactional errors.
 - d. Initiation of changes to existing applications.

21. For control purposes, which of the following should be organizationally segregated from the computer operations function?
- Data conversion
 - Surveillance of CRT messages
 - Systems development**
 - Minor maintenance according to a schedule
22. Which of the following is not a major reason for maintaining an audit trail for a computer system?
- Deterrent to irregularities
 - Monitoring purposes
 - Analytical procedures**
 - Query answering
23. In an automated payroll system, all employees in the finishing department were paid the rate of P75 per hour when the authorized rate was P70 per hour. Which of the following controls would have been most effective in preventing such an error?
- Access controls which would restrict the personnel department's access to the payroll master file data.
 - A review of all authorized pay rate changes by the personnel department.
 - The use of batch control totals by department.
 - A limit test that compares the pay rates per department with the maximum rate for all employees.**
24. Which of the following errors would be detected by batch controls?
- A fictitious employee as added to the processing of the weekly time cards by the computer operator.
 - An employee who worked only 5 hours in the week was paid for 50 hours.
 - The time card for one employee was not processed because it was lost in transit between the payroll department and the data entry function.
 - All of the above.**
25. The use of a header label in conjunction with magnetic tape is most likely to prevent errors by the
- Computer operator**
 - Keypunch operator
 - Computer programmer
 - Maintenance technician
26. For the accounting system of ACME Company, the amounts of cash disbursements entered into an EDP terminal are transmitted to the computer that immediately transmits the amounts back to the terminal for display on the terminal screen. This display enables the operator to
- Establish the validity of the account number
 - Verify the amount was entered accurately**
 - Verify the authorization of the disbursements
 - Prevent the overpayment of the account
27. When EDP programs or files can be accessed from terminals, users should be required to enter a(an)
- Parity check
 - Personal identification code**
 - Self-diagnostic test
 - Echo check
28. The possibility of erasing a large amount of information stored on magnetic tape most likely would be reduced by the use of
- File protection ring**
 - Check digits
 - Completeness tests
 - Conversion verification
29. Which of the following controls most likely would assure that an entity can reconstruct its financial records?
- Hardware controls are built into the computer by the computer manufacturer.
 - Backup diskettes or tapes of files are stored away from originals.**
 - Personnel who are independent of data input perform parallel simulations.
 - System flowcharts provide accurate descriptions of input and output operations.
30. Mill Co. uses a batch processing method to process its sales transactions. Data on Mill's sales transaction tape are electronically sorted by customer number and are subject to programmed edit checks in preparing its invoices, sales journals, and updated customer account balances. One of the direct outputs of the creation of this tape most likely would be a
- Report showing exceptions and control totals.**
 - Printout of the updated inventory records.
 - Report showing overdue accounts receivable.
 - Printout of the sales price master file.

31. Using microcomputers in auditing may affect the methods used to review the work of staff assistants because
- The audit field work standards for supervision may differ.
 - Documenting the supervisory review may require assistance of consulting services personnel.
 - Supervisory personnel may not have an understanding of the capabilities and limitations of microcomputers.
 - Working paper documentation may not contain readily observable details of calculations.**
32. An auditor anticipates assessing control risk at a low level in a computerized environment. Under these circumstances, on which of the following procedures would the auditor initially focus?
- Programmed control procedures
 - Application control procedures
 - Output control procedures
 - General control procedures**
33. After the preliminary phase of the review of a client's EDP controls, an auditor may decide not to perform tests of controls (compliance tests) related to the control procedures within the EDP portion of the client's internal control structure. Which of the following would not be a valid reason for choosing to omit such tests?
- The controls duplicate operative controls existing elsewhere in the structure.
 - There appear to be major weaknesses that would preclude reliance on the stated procedure.
 - The time and costs of testing exceed the time and costs in substantive testing if the tests of controls show the controls to be operative.
 - The controls appear adequate.**
34. Which of the following client electronic data processing (EDP) systems generally can be audited without examining or directly testing the EDP computer programs of the system?
- A system that performs relatively uncomplicated processes and produces detailed output.**
 - A system that affects a number of essential master files and produces a limited output.
 - A system that updates a few essential master files and produces no printed output other than final balances.
 - A system that performs relatively complicated processing and produces very little detailed output.
35. Computer systems are typically supported by a variety of utility software packages that are important to an auditor because they
- May enable unauthorized changes to data files if not properly controlled.**
 - Are very versatile programs that can be used on hardware of many manufacturers.
 - May be significant components of a client's application programs.
 - Are written specifically to enable auditors to extract and sort data.
36. To obtain evidence that online access controls are properly functioning, an auditor most likely would
- Create checkpoints at periodic intervals after live data processing to test for unauthorized use of the system.
 - Examine the transaction log to discover whether any transactions were lost or entered twice due to a system malfunction
 - Enter invalid identification numbers or passwords to ascertain whether the system rejects them.**
 - Vouch a random sample of processed transactions to assure proper authorization
37. Which of the following statements most likely represents a disadvantage for an entity that keeps microcomputer-prepared data files rather than manually prepared files?
- Attention is focused on the accuracy of the programming process rather than errors in individual transactions.
 - It is usually easier for unauthorized persons to access and alter the files.**
 - Random error associated with processing similar transactions in different ways is usually greater.
 - It is usually more difficult to compare recorded accountability with physical count of assets.
38. An auditor would least likely use computer software to
- Access client data files
 - Prepare spreadsheets
 - Assess EDP controls**
 - Construct parallel simulations

39. A primary advantage of using generalized audit software packages to audit the financial statements of a client that uses an EDP system is that the auditor may
- Consider increasing the use of substantive tests of transactions in place of analytical procedures.
 - Substantiate the accuracy of data through self-checking digits and hash totals.
 - Reduce the level of required tests of controls to a relatively small amount.
 - Access information stored on computer files while having a limited understanding of the client's hardware and software features.
40. Auditors often make use of computer programs that perform routine processing functions such as sorting and merging. These programs are made available by electronic data processing companies and others and are specifically referred to as
- Compiler programs
 - Supervisory programs
 - Utility programs
 - User programs
41. Smith Corporation has numerous customers. A customer file is kept on disk storage. Each customer file contains name, address, credit limit, and account balance. The auditor wishes to test this file to determine whether the credit limits are being exceeded. The best procedure for the auditor to follow would be to
- Develop test data that would cause some account balances to exceed the credit limit and determine if the system properly detects such situations.
 - Develop a program to compare credit limits with account balances and print out the details of any account with a balance exceeding its credit limit.
 - Request a printout of all account balances so they can be manually checked against the credit limits.
 - Request a printout of a sample of account balances so they can be individually checked against the credit limits.
42. The use of generalized audit software package
- Relieves an auditor of the typical tasks of investigating exceptions, verifying sources of information, and evaluating reports.
 - Is a major aid in retrieving information from computerized files.
 - Overcomes the need for an auditor to learn much about computers.
 - Is a form of auditing around the computer.
43. An auditor used test data to verify the existence of controls in a certain computer program. Even though the program performed well on the test, the auditor may still have a concern that
- The program tested is the same one used in the regular production runs.
 - Generalized audit software may have been a better tool to use.
 - Data entry procedures may change and render the test useless.
 - The test data will not be relevant in subsequent audit periods.
44. An auditor most likely would introduce test data into a computerized payroll system to test internal controls related to the
- Existence of unclaimed payroll checks held by supervisors.
 - Early cashing of payroll checks by employees.
 - Discovery of invalid employee I.D. numbers.
 - Proper approval of overtime by supervisors.
45. When an auditor tests a computerized accounting system, which of the following is true of the test data approach?
- Test data must consist of all possible valid and invalid conditions.
 - The program tested is different from the program used throughout the year by the client.
 - Several transactions of each type must be tested.
 - Test data are processed by the client's computer programs under the auditor's control.
46. Which of the following statements is not true to the test data approach when testing a computerized accounting system?
- The test need consist of only those valid and invalid conditions which interest the auditor
 - Only one transaction of each type need be tested.
 - The test data must consist of all possible valid and invalid conditions.
 - Test data are processed by the client's computer programs under the auditor's control.
47. Which of the following is not among the errors that an auditor might include in the test data when auditing a client's EDP system?
- Numeric characters in alphanumeric fields.
 - Authorized code.

- c. Differences in description of units of measure.
 - d. Illogical entries in fields whose logic is tested by programmed consistency checks.
48. An auditor who is testing EDP controls in a payroll system would most likely use test data that contain conditions such as
- a. Deductions not authorized by employees.
 - b. Overtime not approved by supervisors.
 - c. Time tickets with invalid job numbers.
 - d. Payroll checks with unauthorized signatures.
49. Auditing by testing the input and output of an EDP system instead of the computer program itself will
- a. Not detect program errors which do not show up in the output sampled.
 - b. Detect all program errors, regardless of the nature of the output.
 - c. Provide the auditor with the same type of evidence.
 - d. Not provide the auditor with confidence in the results of the auditing procedures.
50. Which of the following computer-assisted auditing techniques allows fictitious and real transactions to be processed together without client operating personnel being aware of the testing process?
- a. Integrated test facility
 - b. Input controls matrix
 - c. Parallel simulation
 - d. Data entry monitor
51. Which of the following methods of testing application controls utilizes a generalized audit software package prepared by the auditors?
- a. Parallel simulation
 - b. Integrated testing facility approach
 - c. Test data approach
 - d. Exception report tests
52. Misstatements in a batch computer system caused by incorrect programs or data may not be detected immediately because
- a. Errors in some transactions may cause rejection of other transactions in the batch.
 - b. The identification of errors in input data typically is not part of the program.
 - c. There are time delays in processing transactions in a batch system.
 - d. The processing of transactions in a batch system is not uniform.
53. Which of the following is not a characteristic of a batch processed computer system?
- a. The collection of like transactions which are sorted and processed sequentially against a master file.
 - b. Key punching of transactions, followed by machine processing.
 - c. The production of numerous printouts.
 - d. The posting of a transaction, as it occurs, to several files, without immediate printouts.
54. Where disk files are used, the *grandfather-father-son* updating backup concept is relatively difficult to implement because the
- a. Location of information points on disks is an extremely time consuming task.
 - b. Magnetic fields and other environmental factors cause off-site storage to be impractical.
 - c. Information must be dumped in the form of hard copy if it is to be reviewed before used in updating.
 - d. Process of updating old records is destructive.
55. An auditor would most likely be concerned with which of the following controls in a distributed data processing system?
- a. Hardware controls
 - b. Systems documentation controls
 - c. Access controls
 - d. Disaster recovery controls
56. If a control total were computed on each of the following data items, which would best be identified as a hash total for a payroll EDP application?
- a. Total debits and total credits
 - b. Net pay
 - c. Department numbers
 - d. Hours worked
57. Which of the following is a computer test made to ascertain whether a given characteristic belongs to the group?
- a. Parity check
 - b. Validity check
 - c. Echo check
 - d. Limit check

58. A control feature in an electronic data processing system requires the central processing unit (CPU) to send signals to the printer to activate the print mechanism for each character. The print mechanism, just prior to printing, sends a signal back to the CPU verifying that the proper print position has been activated. This type of hardware control is referred to as
- Echo check**
 - Validity control
 - Signal control
 - Check digit control
59. Which of the following is an example of a check digit?
- An agreement of the total number of employees to the total number of checks printed by the computer.
 - An algebraically determined number produced by the other digits of the employee number.**
 - A logic test that ensures all employee numbers are nine digits.
 - A limit check that an employee's hours do not exceed 50 hours per work week.
60. In a computerized system, procedure or problem-oriented language is converted to machine language through a(an)
- Interpreter
 - Verifier
 - Compiler**
 - Converter
61. A customer erroneously ordered Item No. 86321 rather than item No. 83621. When this order is processed, the vendor's EDP department would identify the error with what type of control?
- Key verifying
 - Self-checking digit**
 - Batch total
 - Item inspection
62. The computer process whereby data processing is performed concurrently with a particular activity and the results are available soon enough to influence the course of action being taken or the decision being made is called:
- Random access sampling
 - Integrated data processing
 - On-line, real-time system**
 - Batch processing system
63. Internal control is ineffective when computer department personnel
- Participate in computer software acquisition decisions.
 - Design documentation for computerized systems.
 - Originate changes in master file.**
 - Provide physical security for program files.
64. Test data, integrated test data and parallel simulation each require an auditor to prepare data and computer programs. CPAs who lack either the technical expertise or time to prepare programs should request from the manufacturers or EDP consultants for
- The program Code
 - Flowchart checks
 - Generalized audit software**
 - Application controls
65. Which of the following best describes a fundamental control weakness often associated with electronic data processing system?
- EDP equipment is more subject to system error than manual processing is subject to human error.
 - Monitoring is not an adequate substitute for the use of test data.
 - EDP equipment processes and records similar transactions in a similar manner.
 - Functions that would normally be separated in a manual system are combined in the EDP system like the function of programmers and operators.**
66. Which of the following tasks could not be performed when using a generalized audit software package?
- Selecting inventory items for observations.
 - Physical count of inventories.**
 - Comparison of inventory test counts with perpetual records.
 - Summarizing inventory turnover statistics for obsolescence analysis.
67. All of the following are "auditing through the computer" techniques except
- Reviewing source code**
 - Test-decking
 - Automated tracking and mapping
 - Integrated test facility
68. The output of a parallel simulation should always be
- Printed on a report.
 - Compared with actual results manually.**
 - Compared with actual results using a comparison program.
 - Reconciled to actual processing output.

69. Generalized audit software is a computer-assisted audit technique. It is one of the widely used technique for auditing computer application systems. Generalized audit software is most often used to
- Verify computer processing.
 - Process data fields under the control of the operation manager.
 - Independently analyze data files.**
 - Both a and b.
70. From an audit viewpoint, which of the following represents a potential disadvantage associated with the widespread use of microcomputers?
- Their portability.
 - Their ease of access by novice users.**
 - Their easily developed programs using spreadsheets which do not have to be documented.
 - All of the above.
71. Which of the following functions would have the least effect on an audit if it was not properly segregated?
- The systems analyst and the programmer functions.
 - The computer operator and programmer functions.
 - The computer operator and the user functions.
 - The applications programmer and the systems programmer.**
72. To obtain evidence that user identification and password control procedures are functioning as designed, an auditor would most likely
- Attempt to sign on to the system using invalid user identifications and passwords.**
 - Write a computer program that simulates the logic of the client's access control software.
 - Extract a random sample of processed transactions and ensure that the transactions were appropriately authorized.
 - Examine statements signed by employees stating that they have not divulged their user identifications and passwords to any other person.

SUGGESTED ANSWERS

1. D	14. D	27. A	40. D	53. D
2. D	15. A	28. D	41. D	54. D
3. D	16. D	29. D	42. D	55. D
4. D	17. D	30. A	43. A	56. D
5. D	18. A	31. A	44. B	57. D
6. D	19. B	32. A	45. A	58. D
7. D	20. A	33. C	46. A	59. D
8. D	21. D	34. C	47. B	60. D
9. A	22. B	35. A	48. B	61. D
10. D	23. A	36. B	49. D	62. A
11. B	24. A	37. A	50. D	63. C
12. B	25. D	38. C	51. A	
13. A	26. C	39. C	52. D	

QUIZZERS

1. B	11. B	21. C	31. D	41. B	51. A	61. B	71. D
2. C	12. D	22. C	32. D	42. B	52. C	62. C	72. A
3. D	13. B	23. D	33. D	43. A	53. D	63. C	
4. C	14. B	24. D	34. A	44. C	54. D	64. C	
5. C	15. D	25. A	35. A	45. D	55. C	65. D	
6. D	16. C	26. B	36. C	46. C	56. C	66. B	
7. C	17. A	27. B	37. B	47. A	57. B	67. A	
8. D	18. A	28. A	38. C	48. C	58. A	68. B	
9. D	19. B	29. B	39. D	49. A	59. B	69. C	
10. B	20. B	30. A	40. C	50. A	60. C	70. B	

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