

TESTING – GENERAL AND AUTOMATED CONTROLS

Question 1

Explain testing and state its objectives.

(5 Marks) (Nov 2008)

Answer

Testing is a scientific process performed to determine whether the controls ensure the system design effectiveness as well as the implemented system controls operational effectiveness. It involves, understanding a process and the expected results. Testing of large amounts of transactions or data is usually not possible due to time and cost constraints. Hence, sampling is done on the population (system resource) and ensures a sufficient quality and quantity to extrapolate the results of the testing into a reliable conclusion on the entire population (system resource). Testing of Controls involves obtaining the population and conducting the compliance tests either on the entire population and/or on selected samples from the population. It may also be conducted using utilities of audit tools.

Objectives of Software Testing include:

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has a high probability of finding a yet undiscovered error.
- A successful test is one that uncovers a yet undiscovered error.

The data collected through testing can also provide an indication of the software's reliability and quality. However, testing cannot show the absence of defect, it can only show that software defects are present.

Question 2

Describe some of the advantages of continuous audit techniques.

(5 Marks) (May 2010)

Answer

Some of the advantages of continuous audit techniques are given as follows:

- *Timely, comprehensive and detailed auditing* – Evidence would be available more timely and in a comprehensive manner. The entire processing can be evaluated and analysed rather than examining the inputs and the outputs only.
- *Surprise test capability* – As evidences are collected from the system itself by using continuous audit techniques, auditors can gather evidence without the systems staff and application system users being aware that evidence is being collected at that particular moment. This brings in the surprise test advantages.
- *Information to system staff on meeting of objectives* - Continuous audit techniques provides information to systems staff regarding the test vehicle to be used in evaluating whether an application system meets the objectives of asset safeguarding, data integrity, effectiveness, and efficiency.
- *Training for new users* – Using the Integrated Test Facilities (ITFs) new users can submit data to the application system, and obtain feedback on any mistakes they make via the system's error reports.

Question 3

What are the audit tools and techniques used by an IS Auditor to ensure that disaster recovery plan is in order? Briefly explain them. (4 Marks) (May 2011)

Answer

The audit tools and techniques used by an IS Auditor to ensure that disaster recovery plan is in order, are given as follows:

- **Automated Tools:** Automated tools make it possible to review large computer systems for a variety of flaws in a short time period. They can be used to find threats and vulnerabilities such as weak access controls, weak passwords, lack of integrity of the system software, etc.
- **Internal Control Auditing:** This includes inquiry, observation and testing. The process can detect illegal acts, errors, irregularities or lack of compliance of laws and regulations.
- **Disaster and Security Checklists:** A checklist can be used against which the system can be audited. The checklist should be based upon disaster recovery policies and practices, which form the baseline. Checklists can also be used to verify changes to the system from contingency point of view.
- **Penetration Testing:** Penetration testing can be used to locate vulnerabilities.