

DIFFERENT QUESTIONS IN CA FINAL ISCA RTP MAY 17

Q1 - Information System Risks & Characteristics

- i) **Risk** - It is the possibility of something of adverse happening resulting in potential loss/exposure
- li) **Risk Management** - Process of assessing the risks & taking to steps to reduce risk to an acceptable level & maintaining that level of risk.
- It involves identifying, measuring & minimizing uncertain events affecting the resources.
- lii) **Sources of Risks** - Commercial & legal relationships, Economic Circumstances, Human Behavior, Natural Events, Political Circumstances, Technology & technical issues, etc.
- lv) **Characteristics** - a) Loss potential that exists as a result of threat/vulnerability process. B) Uncertainty of loss expressed in terms of probability c) Likelihood that threat agent mounting specific attack against a system.
- V) **Mitigation of risks** - Managed by providing appropriate IS Security. IS Security is defined as procedures & practices to assure that a) Availability - computer resources are available at all times. B) Complete & Efficient processing - Processing of data is complete c) Access Control - Restricted to authorized persons only.

Q2 - Operational Level (OL) & Management Level (ML) Systems

- i) **Useful for** - OL systems support operational managers in tracking elementary activities (tracking Sales Order, Invoice). Ensure business process is followed.
- ML - useful for middle level managers in monitoring decision making & administrative activities. Provide periodic report than instant information on operations,
- li) **Role & Type of Information provided** - Role of OL systems is to effectively process business transactions, control industrial processes, support enterprise communication, collaborations & update corporate database.
- OL systems used to process a variety of information for internal & external use.
- ML systems are used answer what if questions which can be answered after only after getting new data from outside the organization as well as data inside which cannot be easily obtained from existing operational level systems.

Q3 - Need for Quality Assurance Management Controls in Enterprise

- i) **User demanding quality** - Users are becoming more demanding to terms of quality & expectations of software & organizations are increasingly producing safety critical systems.
- li) **Ambitious Projects** - Ambitious projects are taken by management when they build software.
- lii) **Liability for defective software** - Organizations are becoming concerned about their liabilities if they produce & sell defective software.
- lv) **Costs of not producing quality** - Poor QC over production, implementation & maintenance can be costly in terms of missed deadlines, dissatisfied users & customers, lower morale among IS staff, higher maintenance & strategic projects which must be abandoned.
- V) **Worldwide trend** - Quality improvement is a part of worldwide trend to improve quality of goods & services they sell.
- STEPS** -
- A) **QA Personnel** - To work for improvement of quality improvement of IS produced & implemented, operated & maintained in organization.
- B) **Goals** - Quality goals are established & clearly understood by all stakeholders.
- C) **Compliance with QC standards** to attain Quality of IS.

Q4. BCP audit Steps w.r.t Building Utilities & Transportation

- i) **Inspection by building engineer** - Does the DRP/BRP have provision for building inspection post disaster to identify damage, repair the premises, make it safe for return of employees as soon as possible. Whether building safety features are regularly inspected & tested?
- li) **Alternative shelter** - Need for Alternative shelter. Alternative shelter in same area could be affected by same disaster.
- lii) **Agreements for backup facilities** - It should be reviewed.
- lv) **Adequacy of backup facilities** - Review of Adequate backup facilities based on need & ensure security of site.
- V) **Failure of critical items** - Whether failure of electrical power, natural gas, toxic chemical containers & gas is considered in DRP?
- Vi) **Disruption of transportation systems** - a) It can affect employees ability to report to work & return home b) Affect ability of vendors to provide goods needed in recovery effort. Whether these two aspects are considered?

Q5. Functions performed by IS Auditors

- Introduction** - IS Auditor is assessor of business risks. He can check technicalities well enough to understand the risk, make sound assessment and present risk oriented advice to management. He reviews risks relation to IS & processes as follows
- A) **Security Controls** - Inadequate security controls (missing antivirus, open ports, open systems without passwords.
- B) **IS Resources** - Inefficient use of IT resources or poor governance (huge spending on unnecessary projects)
- C) **Strategies, policies & practices** - Ineffective IT strategies, policies & practices.(ICT Resources, Internet usage policy, Security practices)
- D) **Frauds** - IT related frauds (phishing, hacking)

Q6 Major Concerns that Auditor should address in evaluating implementation of Programming Management Controls

- i) **Planning** - Nature & Extent of Planning are apt considering different types of software that are developed/acquired. Evaluate how well planning is undertaken.
- li) **Control** - Nature & extent of control activities are apt for different types of software developed/acquired. Gather evidence on whether control procedures are operating reliably.
- lii) **Design** - Whether programmers use some type of systematic approach to design. Obtain evidence through Interviews, Observations & Documentation
- lv) **Coding** - Level of care exercised to design module implementation & integration testing. Whether structured programming conventions are followed?. Whether automated facilities are used for coding work.
- V) **Testing** - Use interviews, observations & documentation to evaluate how well unit testing is conducted. Whether whole of program tests have been undertaken for all material programs and these tests have been well designed and executed.
- Vi) **Operation & Maintenance** - Ensure effectively & timely reporting of maintenance needs & maintained is carried out in well controlled manner. Management has implemented a review system & assigned responsibility for monitoring status of operational programs

Q7. Short Note on IT General Controls

i) What is ITGC - Basic Policies & procedures to ensure that organization IS are properly safeguarded, application programs and data are secure & computerized operations can be recovered in case of unexpected interruptions.

ii) Foundation for overall IT control environment as they provide assurance that system operate as intended and output is reliable. Failure on this part means that there will be no assurance over IT Application Controls.

Also referred to as General Computer Controls (GCCs) - These are controls other than other than application controls, which relate to the environment within which computer-based application systems are developed, maintained and operated, and which are therefore applicable to all applications

iii) Objectives - ensure the proper development and implementation of applications, the integrity of program and data files and of computer operations

iv) Types - Can be manual or programmed.

Q8. An owner of a small local store is currently using manual system for his day to day business activities viz. purchase, sales, billing, payments receipts etc. In the last few years, turnover of the store is increased manifold and now it has become increasingly difficult to handle all these activities manually. You being an IT expert and his auditor, are requested to suggest which operation support system will be the most suitable for him. Also, advise him what activities can be performed by the proposed system and what are the major limitations of it?

i) Suggestion - We would suggest the owner to implement Transaction processing System (most suitable option to him)

ii) Reason - It is for lowest level of management that manipulates data from business transactions efficiently & if properly computerized it provides speed & accuracy too.

iii) Various day to day business activities such as sales, purchases involves transactions which can be organized & manipulated to generate various product info for external use.

iv) Activities performed by TPS - a) Capturing data to organize in files/database b) Processing files/database using apply software c) Generating info in the form of reports d) Processing of queries from various quarters of organization.

v) Functioning Method - It can follow batch processing or online processing however online system is preferred more.

vi) Limitations - People involved in TPS are not able to make management decisions.