INFORMATION TECHNOLOGY

General:

Questions were clear in their requirement. Generally, the candidates attempted all the questions but they did not seem to understand some of the given scenarios.

Question-wise comments are as follows;

Q.1 In this question candidates were required to describe basic types of local area network configurations. Most of them were able to secure good marks in this question. However, while explaining various network topologies some candidates mixed them up and explained star topology while describing ring topology and mesh topology while describing star topology. Such mistakes showed that though candidates had memorized the explanation, understanding of the concepts was lacking.

Q.2 This was relatively an easy question in which candidates were required to explain the Executive Information System (EIS) and identify its key advantages. Most students performed exceptionally well in this question. Some of the candidates, who knew only one or two correct points, repeated such points in different words to lengthen their answers, but such practices result in loss of their time instead of giving any benefit.

Q.3 Many students described advantages and disadvantages of antivirus programs in general instead of narrating them separately in respect of network based and end user based antivirus programs. Some of them described advantages and disadvantages of specific antivirus programs like those of McAfee, Norton and Lavasoft etc. In fact, they were expected to narrate the following:

- Server based virus detection programs can detect the viruses before they enter the network.
- Regular updating of server based antivirus programs is much easier to accomplish as compared to programs installed at end user machines.
- During execution, server based antivirus programs may affect the network performance whereas client based programs may slow down the end user machine.
- End user based antivirus programs are extremely helpful in detecting malicious codes from removable media.

Q.4 In this question the candidates were required to explain the types of Computer Aided Software Engineering (CASE) tools and their advantages in system analysis and development process. Most candidates correctly identified the advantages of CASE tools and two of its types i.e. Upper CASE (or Analysts Workbench) and Lower CASE (or Programmers Workbench) tools. However, only few of them were able to identify Integrated CASE tools which is a combination of Upper and Lower CASE tools.

Most of the candidates were also able to identify the main advantages of CASE tools such as:

- Increasing analyst productivity
- Effective communication with users
- Integration of activities and providing continuity between different phases of SDLC
- Accurate assessment/identification of maintenance changes.

Q.5 The scenario given in this question related to a bank which had completed its first processing cycle on its newly implemented custom-built software. Although the question was clear in its requirement, some candidates described the procedure of conducting the Post Implementation Review (PIR) which was not required. Some candidates had no idea as to when the PIR should be conducted. Candidates should note that the main purpose of conducting a PIR includes comparing the actual objectives, scope and benefits of the new system with the agreed-upon objectives, scope and benefits. It also provides a formal feedback to functional users on the development and operations of the system.

As regards the timing, it must be noted that most of the bugs and errors are identified during first processing cycle. The users gain a good understanding of the system by the end of first processing cycle and are in a better position to give their feedback on the system. Since in the given scenario, first processing cycle had been completed, it was the right time to conduct the PIR.

Q.6 According to this question a medium-sized hospital was planning to acquire integrated software for maintaining its patients' records. Candidates were required to list logical access controls that should be incorporated in the system to ensure the security of patients' data. A number of candidates described some of the general logical access controls which were not related to the given scenario. Some of them mentioned environmental and physical controls instead of logical access controls. For example, they mentioned that food stuff should not be allowed in the processing facility and the server room should have proper lock and key arrangements etc. A number of candidates were able to identify only one correct control which is 'each user should have a unique name based ID and password'. Some of the other logical access controls which could have been mentioned are given below:

- Mandatory password change after a certain period
- Inactive accounts are disabled automatically after a pre-defined period of non-usage
- The application terminates a session after a specified *time period* of inactivity.

Q.7 Most answers to this question reflected that the candidates did not read the given scenario carefully and missed the words "continuity of operations" and "alternative processing facility arrangements". Consequently, instead of explaining hot / warm sites or reciprocal arrangements etc. they explained batch processing, online processing and real time processing. Therefore, they were unable to recommend any appropriate alternative processing facility arrangement for Galaxy Services.

Q.8 In this question candidates were required to construct the flowchart of a simple program. This flowchart could have been drawn in more than one ways. Almost all the candidates attempted this question but only a few were able to draw it correctly till the end. However, a number of candidates were able to secure more than 50% marks in this question. The weaknesses observed in the responses to this question were as follows:

- A number of students were weak in drawing the symbols as they drew simple squares for all sorts of operations including decision box.
- Some candidates showed multiple ends of the same process.
- Many candidates were unable to incorporate the loop at correct place.

Candidates should note that preparation of proper flow charts requires a lot of practice. Moreover, after preparing the flow chart they may try to route a hypothetical record through the various steps to see whether it gives the required result. This will help them to identify their mistakes.

(THE END)