

## SOLUTION MIS AND BUSINESS SYSTEMS NOVEMBER 2009

### QUESTION 1

- (a) Information Technology  
It is the hardware, software, telecommunication, database management and other information processing technologies used in computer-based information system.
- (b) (i) World Wide Web.  
A global network of multimedia internet sites for information, education, entertainment, e-business and e-commerce.
- (ii) A DNS is the equivalent text of the Internet Protocol used to facilitate the identification of a website.
- (c) Four (4) Benefits
- Expand Market share
  - 24/7 service available
  - Continuous service
  - Global presence
  - Network .....
  - Contact with supplies
  - Better sales service delivery
  - Customer care/after sales support

### QUESTION 2

- (a) On-line transaction one ..... directly on the system. The transaction is processing immediately as against batch processing.

On-line transaction done on the internet or computer system gives instant information or outcome.

- (b) Advantages of On-line transaction
- Expansion of Market Range
  - Global Presence, removal of barrier
  - 24/7 services
  - Continuous services
  - Wider market
  - Each reach or access to customers
  - Access to venders

- (c) - Fraud due to Hackers
- Steady of customer information
- System breakdown dues infrastructure failure
- Virus attack

Remedy

- Secure Site – Entry through password
- Authorization or authentication of details
- Installation of anti-virus software

### QUESTION 3

(a) Features of a Spreadsheet Package

- Automatic Calculation
- Arithmetic, Financial & ..... computation
- Graphical Representation
- Database features
- ..... Examples
  - Excell
  - Lotus 1-2-3
  - SuperCale
  - Quattro

(b) Word Processing

- Editing
- Spell checking
- Formatting
- Text manipulation
- .....
- Mail merge

- Examples
- Word
  - Word Perfect
  - Wordstar
  - Professional write

- (c) . Stock Control Package
- . Sales/Purchase Package
- . Accounting System
- . Payroll
- . HRM Package

#### QUESTION 4

- (a) i. A backup is the process of making copies of the information stored on a computer on storage media.
- ii. Importance
  1. Lost files and documents are restored
  2. Company's operations are not disrupted since information, documents and data are not lost during disaster giving the company credibility to customers
  3. Reliability of information and availability of historical data for analysis
  4. Customer confidence
  5. Systems integrity
- iii. Media for Backup
  1. CD-ROMS
  2. External Hard disks
  3. SAN's
  4. NAS
  5. Tapes
- (b) (i) Extranet
  - A network that links selected resources of a company with its customers, suppliers and other business partners using the internet or private networks to link the organisation's intranets.
- (ii) Executive Information Systems (EIS)
 

An information system that provides strategic information tailored to the needs of executive management.

(iii) Downtime

The time interval during which a computer system is malfunctioning or inoperative.

(iv) Financial Management Systems

Information system that support financial managers in the financing of a business and the allocation and control of financial resources. These include cash and security management, capital budgetary, financial forecasting and financial .....

## QUESTION 5

Strategy is a course of action, including the specification of resources required to achieve a specific objective.

Strategic Planning is the formulation, evaluation and selection of strategies for the purpose of preparing a long-term plan of action to attain the objectives.

Information Systems and Information Technology Strategy should be an integral part of the overall strategic plan of the organisation.

An Information Systems and Information technology Strategy must deal with three issues.

The organisation overall business needs

The current Information System and Information technology

The opportunities and threats of IS/IT.

The Organisation's Overall Needs:

The business needs and IS/IT needs:

Define the business objectives.

Outline how IS/IT can support the identified business objectives

A technique for identifying business needs is these of Critical success factors

Evaluating the current use of IS/IT

Identify and briefly document current IS/IT systems

Identify gaps in the system's coverage. – An organisation with a good financial reporting system may have no marketing system.

Access and document the technical effectiveness and efficiency –

System specialist and providers assess the technical quality in terms of:

Reliability, Ease of Maintenance and Cost Efficiency.

User-rating of system – Business Impact, Ease of use and user-friendliness,  
Frequency of use, suggest enhancements.

The opportunities and Threats of IS/IT

Analysis of the above will form a basis to decide if IS/It may play:

A support role

A strategic role or

A high potential role

Identify and analyse opportunities and threats through think tanks, brainstorming sessions, ideas from users and customers.

Processes for innovation – recruiting outsiders, experimenting with innovative projects.

New technologies to be adopted and new systems to be procured or developed.

External and environmental analyses to know current systems being used by competitors in the industry.

IS/IT strategy is formulated specifying the following:

The objectives

The methods for achieving them (processes, technology, etc)

Resources requirement

Targets and performance measures

## **QUESTION 6**

The following types of controls are available:

i. Implementation Controls

This audits the systems development process at various points to ensure that the process is properly controlled and managed. The systems development audits should look for the presence of formal review points at various stages of development that enables users and managers to approve or disapprove the implementation.

ii. Software Controls

These monitor the use of system software and prevent unauthorized access of software programs, system software, and computer programs. System software is an important control area because it performs overall control functions for the programs that directly process data and data files.

iii. **Hardware Controls**  
These ensure that computer hardware is physically secure, and they check for equipment malfunction. Computer hardware should be physically secured so that it can be accessed only by authorised individuals. Computer equipment should be specially protected against fires and extremes of temperature and humidity. Organisations that are critically dependent on their computers also must make provisions for emergency backup in case of power failure.

iv. **Computer Operations Controls**  
These apply to the work of the computer department and help ensure that programmed procedures are consistently and correctly applied to the storage and processing of data. They include controls over the setup of computer processing job, operations software, and computer operations, and backup and recovery procedures for processing that end abnormally.

Instructions for running computer jobs should be fully documented reviewed and approved by a responsible official.

v. **Data Security Control**  
These ensure that valuable business data files on either disk or tape are not subject to unauthorized access, change, or destruction. Such controls are required for data files when they are in use and when they are being held for storage.

When data can be input on-line through a terminal, entry of unauthorized input must be prevented.

Some of the controls include:

- Physical restriction terminals so that they are available to authorized individuals
- System software can include the use of passwords assigned only to authorized individuals
- Additional sets of passwords and security restrictions can be developed for specific systems and applications.

vi. **Administrative Controls**  
These are formalized standards, rules, procedures and control disciplines to ensure that the organisation's general and application controls are properly executed and enforced. The most important administrative controls are (1) segregation of functions (2) written policies and procedures, and (3) supervision.

## QUESTION 7

a. **Database Management System (DMBS)**  
A set of computer programs that controls the creation, maintenance and utilization of the database of an organisation.

- b. **Relational Database**  
It was a series of logically related two-dimensional tables or files to store information in the form of a database. A relational database is composed of two distinct parts. The information itself, stored in a series of two-dimensional tables, files or relational and (2) the logical structure of that information.
- c. **Data Dictionary**  
A software module and database containing descriptions and definitions concerning the structure, data elements interrelationships and other characteristics of a database. It is a database about the database.
- d. **Database Administration**  
A specialist responsible for maintaining standards for the development, maintaining and security of an organisation's database.