

## SOLUTION: MIS & BUSINESS SYSTEMS MAY 2008

### QUESTION 1

- (i) A local Area Network (LAN) is a combination of computer hardware, software and communication channels that connect two or more computers within a building/office
- (ii) Benefits of LAN
- Sharing of computer resources e.g. printers, files
  - Sharing of programs and applications
  - Lowering of costs of equipment through sharing of resources
  - Efficient Usage of Resources
  - Provide users with access to shared program and data file improving workflow and increasing productivity
  - Ease of communication among users
  - On line transactions that impact other systems - warehouse and sales points are able to know stock levels.
- (iii) Recommended Topology

Recommended topology is in STAR topology. It is a network where all devices are connected to a central host computer.

This allows for ease of system administration. It is secure as well as reliable.

#### Recommended Application Packages

- i) Warehouse - Stock Control: - To keep track of stock levels
- ii) Sales Points - Sales System: - Sales record for the period
- iii) Back Office - Purchase System: - For Accounts Payable
- iv) General Ledger - Details of Financial transaction and Financial Reports, trading Profit
- v) HRM - Maintain Records of staff and payroll

### QUESTION 2

- i) What is E-business?

It is the use of the Internet, intranet, extranets and other computer networks to support electronic commerce and other electronic business process, decision making, team and workgroup collaboration within the enterprise and among its customers, suppliers and other business partners.

(ii) Business Risks

- Theft of credit card
- Use of false information

Opportunity

- Increased Market
- New Market operations
- Innovation in operation
- Quick access to alternative source of products and Raw Materials

(iii) - Password administration

- Menu restriction
- Encryption
- Physical/logical access control
- Use of antivirus software
- Identification of backup systems

### QUESTION 3

#### Advantages

- Ease of data migration
- No duplication of Data
- Automatic update of interested ledgers or systems
- Transaction on line
- Generated reports are current
- Generates comprehensive reports

#### Disadvantages

- One error affects all subsystems
- Breakdown on one component system may make total system ineffective
- Several users have access to system leading to increased complexity of system administration
- Further training costs may be incurred
- More expensive than single user.

Control database will give fast and accurate reports

System control will be implemented

- Since transactions will be online, .... and one source of entry, reports will be timely and accurate
- Reduced cost of processing data and generating reports
- Reduction in hardware expenditure
- Shared computer resources such as printers, software, etc

Management Information System

A management support system that produces pre specified reports, displays and responses on a periodic exception, demand or push reporting basis.

#### **QUESTION 4**

(a) System Development Life Cycle

1. Problem Identification
  2. Preliminary Analysis or Project Planning (Feasibility Study)
  3. System Analysis
  4. System Design
  5. System Development
  6. Implementation
  7. Maintenance
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1. Preliminary Analysis
    - Establishes a high level view of the project
    - Determines its goals/objectives
    - Set scope of project.
  2. System Analysis
    - Redefines project goals into defined function and operation of the intended application
    - Analyse how existing system works and determines how proposed system works
    - Action charts, data flow diagrams and system flow diagrams are designed.
  3. System Design
    - Describes desired features and operation in detail

- Design the Technical Architecture
  - Design the System Model-Create (GUI) Graphic User Interface, database creation.
4. System Development
- Executing the design into a physical system
  - Building the technical architecture
  - Building the database and programs
  - Testing the developed system.
5. Implementation
- The systems are placed into production and actually run with live data
  - The user guide is created
  - Training to end-users of system.
6. Maintenance
- Keeping system up-to date with changes in organization
  - Creation of Help Desk to support System Users
  - Implement changes to system when necessary.

## QUESTION 5

- (a) 'Project Management' is the process of scoping, planning, staffing, organizing, directing, and controlling the development of an acceptable system at a minimum cost within a specified time frame.
- (b) On a project, the various resources that can be assigned and managed are:
- i) People – includes all the system owners, users, analysts, designers, builders, external agents and clerical help that will be involved in the project in any way.
  - ii) Services – includes services such as a quality review that may be charged on a per-use basis.
  - iii) Facilities and equipment – includes all rooms and technology that will be needed to complete the project.
  - iv) Suppliers and materials – includes everything from pencils, papers and notebooks, to toner cartridges, and so on.
  - v) Money – includes a translation of all of the above into budgeted Ghana cedis.

The availability of resources, especially people and facilities, can significantly alter the project schedule.

- (c) Resource leveling is a strategy used to correct resource over allocations by some combination of delaying or splitting tasks.

Delaying tasks is based on the concepts of critical path and slack time. activities on the critical path cannot be delayed, but those with some slack may be delayed.

Splitting tasks involves breaking a task into multiple tasks to assign alternate resources to the tasks. Thus, a single task for which a resource was over allocated is now apportioned to two or more resources that are not over allocated.

Splitting tasks requires identifying and assigning new resources such as analysts, contractors or consultants.

## QUESTION 7

- (a)
- Quality
    - The information is accurate and reliable. The quality of the information will give accurate reliable reports.
  - Completeness
    - There must be enough information to allow you to make a decision. Too much information.
  - Timeless
    - Information must reach managers quickly.
  - Relevance
    - Different managers have different information needs. Information system Often make too much data available. Managers must learn to ask relevant questions.
- (b) Production and Operation transaction Processing Section
- Production Control Systems use information technology to control purchasing, scheduling and shipping of goods and services.
  - CAD/CAM Systems use information technology to design and manufacture parts or entirely assembled products.
  - EDI Systems involve the establishment of electronic links between firms that have a customer-supplier relationship.

### Accounting and Finance Transaction Processing System

- Accounting Systems track flow of funds in a firm and manage the available funds of a firm to maximize the return on funds.
- Account receivables monitor fund owed firm.
  - Account payable system monitor that firm own others
  - Manages Cash and Credit.

### Marketing and Sale Transaction Processing System

- Customer Identification System
- Sales support Systems to track prospects and customers
- Order processing and Point of Sale systems
- Credit authorization for credit Units