**SET B Solutions**

**Section A)**

**Ans 1.** The internet has changed the face of business. It has opened up new avenues of conducting business. The internet thus has made a big impact in the way the business gets conducted in both positive as well as a negative way. The internet has made many business obsolete example post offices. Online security issues like hacking, identity theft, etc. are a constant threat to internet users. Below are some impacts of the internet on business:

**Communication**: communication technology combined with the internet has given a new dimension to connectivity and dispersion of information. Employees are in constant touch through email, instant messaging, office intranet, etc.

**Collaboration:** The internet has facilitated collaboration among employees of organization. Geographical boundaries no longer hamper project work and sharing of information.

**Business Transaction:** The internet has encouraged the culture of online business or e-commerce. In recent years many players have opened shops through e-commerce. Internet banking, payment gateways, etc. are part of normal supply chain transaction.

**Work Flexibility:** The internet has enabled workers to log in from remote location and home. It has helped on the move employees by remaining in touch with happenings of work.

Web based application: The internet has facilitated the development of concept like cloud computing, which has enabled process and storing of data in large proportion. The internet has helped reduce infrastructure cost of the company.

**Ans 2)**

An information system is essentially made up of five components hardware, software, database, network and people. These five components integrate to perform input, process, output, feedback and control.



**People :** Rules for achieving optimal and secure operations in data processing; procedures include priorities in dispensing software applications and security measures

**Hardware:** A computer and its peripheral equipment: input, output and storage devices; hardware also includes data communication equipment

**Software:** Sets of instructions that tell the computer how to take data in, how to process it, how to display information, and how to store data and information

**Data Resources:** Data is more than the raw material of information systems. The concept of data resources has been broadened by managers and information systems professionals.

**Network Resources**: Telecommunications networks like the Internet, intranets, and extranets have become essential to the successful operations of all types of organizations and their computer-based information systems.

**Ans 3)**

A strategic plan is a valuable guide for your employees, your organization's leadership and your stakeholders to know where you're going and why you're going there. The document that contains the strategic plan is not what is valuable; it's the information within it and the process used to create it that is then SHARED and COMMUNICATED with the rest of your team. A great strategy is most often re-evaluated on an ongoing basis.

**The strategic planning processes are the steps that you go through as an organization to determine:**

The direction of your organization (Vision)

What you're going to do and for whom (Mission)

How to measure it and guide your strategy to get to where you want to be (Goals)

**The complete strategic planning process**:

Step 1: Gather inputs

Step 2: Vision

Step 3: Mission

Step 4: Values

Step 5: Strategic Priorities, Goal, Strategies and Tactics

Step 6: Communication Plan

Step 7: Action plan

**Ans 4)**

A system is a combination of parts or components, which work together to control a task or activity. All systems have inputs, a process, and outputs.

**Types of System:**

**Physical or Abstract:** Physical system is tangible entities that may be static or dynamic in nature. Abstract system is conceptual or non-physical. The abstract is conceptualization of physical situations.

**Open and Closed**: An open system continually interacts with its environment. It receives input from the outside and delivers output to outside. A closed system is isolated from environment influences.

**Permanent and Temporary System**: A permanent system is a system enduring for a time span that is long relative to the operation of human. Temporary system is one having a short time span.

**Natural and Man Made System**: System which is made by man is called man made system. Systems which are in the environment made by nature are called natural system.

**Deterministic and Probabilistic:** A Deterministic system is one in which the occurrence of all events is perfectly predictable. Probabilistic system is one in which the occurrence of events cannot be perfectly predicted.

**Man-made Information System:** It is generally believed that the information reduces uncertainty about a state or event.

**Ans 5)**

The Business Functions consist of vocabulary content to provide an enterprise-wide view of activities. The Business Functions identify and define the functions that support the core processing activities of the financial services institutions.

**Types of Business Functions**

**Accounting and Bookkeeping Function**: An effective bookkeeping and accounting business function allows a business to operate and salaries to be paid.

**Human Resources Function:** Human resources are an important business function at the early stage of a business's development, serving the function of managing employee data and establishing company policies.

**Manufacturing Function** Manufacturing as a business function contributes to your business's competitive advantage.

**Sales Function** Technology development, globalization and large buyers such as Wal-Mart contribute to complicate the sales function of a business. To succeed in this environment, the sales function of the business focuses on the customer and building long-term relationships.

**Ans 6**)

**i)**

**business information system**

An information system is the information and communication technology (ICT) that an organization uses, and also the way in which people interact with this technology in support of business processes. Some authors make a clear distinction between information systems, computer systems, and business processes.

**Key Components of Business Information System:**

1. Decisions

2. Transactions and processing

3. Information and its flow

4. Individuals or functions involved.

**ii)**

The Software Development Lifecycle is a systematic process for building software that ensures the quality and correctness of the software built. SDLC process aims to produce high-quality software which meets customer expectations. The software Development should be complete in the pre-defined time frame and cost.

Phase 1: Requirement collection and analysis

Phase 2: Feasibility study:

Phase 3: Design:

· Phase 4: Coding:

· Phase 5: Testing:

· Phase 6: Installation/Deployment:

· Phase 7: Maintenance:

**Section B)**

**a) Systems Analysis**

it is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components. System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives.

Structured Analysis: Structured Analysis led to structured design, which in turn led to structured systems analysis. These techniques were characterized by their use of diagrams: structure charts for structured design, and data flow diagrams for structured analysis, both to aid in communication between users and developers, and to improve the analyst's and the designer's discipline.

**Phases of development of a system using Structured Analysis/Structured Design (SASD) are −**

Feasibility Study

Requirement Analysis and Specification

System Design

Implementation

Post-implementation Review

**Object oriented analysis:** In Object Oriented analysis, code and data are merged into a single unbreakable thing, an object. This allows for objects to remain like black boxes that nobody needs to see inside of. This is because all the modification of any object is done through messages that act upon the objects and indeed all objects get their action from the messages. This is called encapsulation and provides a way for parts (or packages) to be reused or or changed while the properties of the object remain private.

**The primary tasks in object-oriented analysis (OOA) are:**

Find the objects

Organize the objects

Describe how the objects interact

Define the behavior of the objects

Define the internals of the objects

**ANS b**

**b)** CASE stands for Computer Aided Software Engineering. It means, development and maintenance of software projects with help of various automated software tools.

**CASE Tools**

CASE tools are set of software application programs, which are used to automate SDLC activities. CASE tools are used by software project managers, analysts and engineers to develop software system.

There are number of CASE tools available to simplify various stages of Software Development Life Cycle such as Analysis tools, Design tools, Project management tools, Database Management tools, Documentation tools are to name a few.

Requirement Analysis Tool

Structure Analysis Tool

Software Design Tool

Code Generation Tool

Test Case Generation Tool

Document Production Tool

Reverse Engineering Tool

**Making a case for and against and CASE Tools**

**For:**

Helps standardization of notations and diagrams

Help communication between development team members

Automatically check the quality of the models

Reduction of time and effort

Enhance reuse of models or models' components

**Against:**

Limitations in the flexibility of documentation

May lead to restriction to the tool's capabilities

Major danger: completeness and syntactic correctness does NOT mean compliance with requirements

Costs associated with the use of the tool: purchase + training

Staff resistance to CASE tools