Internal Assessment Test 1 – September 2019

Sub:	Information Management System					Sub Code:	15IS753	Branch:	ISE
Date:	24/9/2019	Duration:	90 min's	Max Marks:	50	Sem / Sec:	VII - B		OBE

	Answer any FIVE FULL Questions	MARKS	CO	RBT
1	What is system? List out the different types of System and explain in brief?	[10]	CO1	L2
2	State the fundamental role of IS in business and explain neatly with the diagram?	[10]	CO1	L1
3	What do you need to know about IMS? What are the components in system?	[10]	CO1	L1
4	Explain with a neat figure, the business competitive strategies and competitive forces that appear in the market place.	[10]	CO1	L2
5	Illustrate a virtual company with necessary elements. Describe the basic business strategies of virtual companies and involve in case study and explain.	[10]	CO1	L3
6	With the help of a neat figure, explain the enterprise application architecture illustrating the major cross functional enterprise applications and their interrelationships	[10]	CO1	L2
7	Explain the case study of introduction of On Q system at Hilton Hotels corporation as an application for data driven hospitality.	[10]	CO1	L3
8	Explain the Information System Activities.	[10]	CO1	L3

Solution

Internal Assessment Test 1

Information Management System(15IS753)

Sept.2019

Sub: Information Management System

Date**:** 21/09/2019 Duration: 90mins Max Marks: 50 **Sem:** VII

1. a) What is system? List out the different types of System and explain in brief?

- System

A system is a set of interrelated components, with a clearly defined boundary, working together to achieve acommon set of objectives.

Dynamic system has three basic interacting components or functions:

- **Input** involves capturing and assembling elements that enter the system to be processed
- **Processing** involves transformation processes that convert input into output.

- **Output** involves transferring elements that have been produced by a transformation process to their ultimate destination.

The system concept becomes even more useful by including two additional components: feedback and control. This is called as a *cybernetic* system, that is, self-monitoring and self-regulatory.

- **Feedback** is data about the performance of a system.
- **Control** involves monitoring and evaluating feedback to determine whether a system is moving toward the achievement of its goal.

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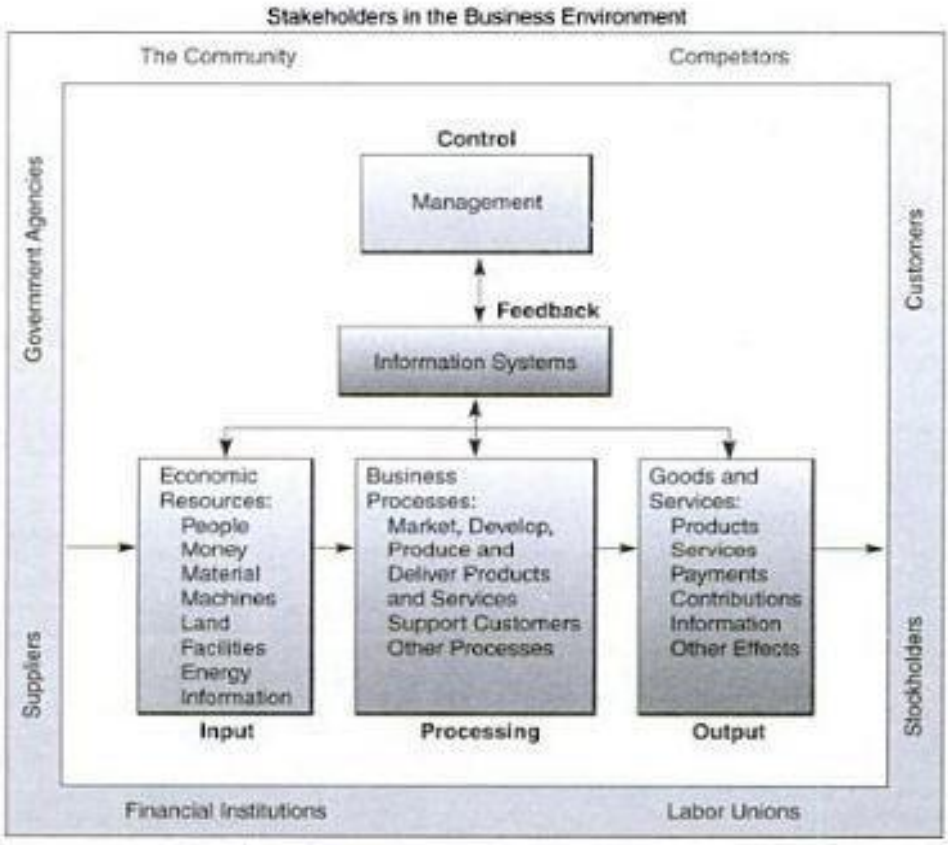
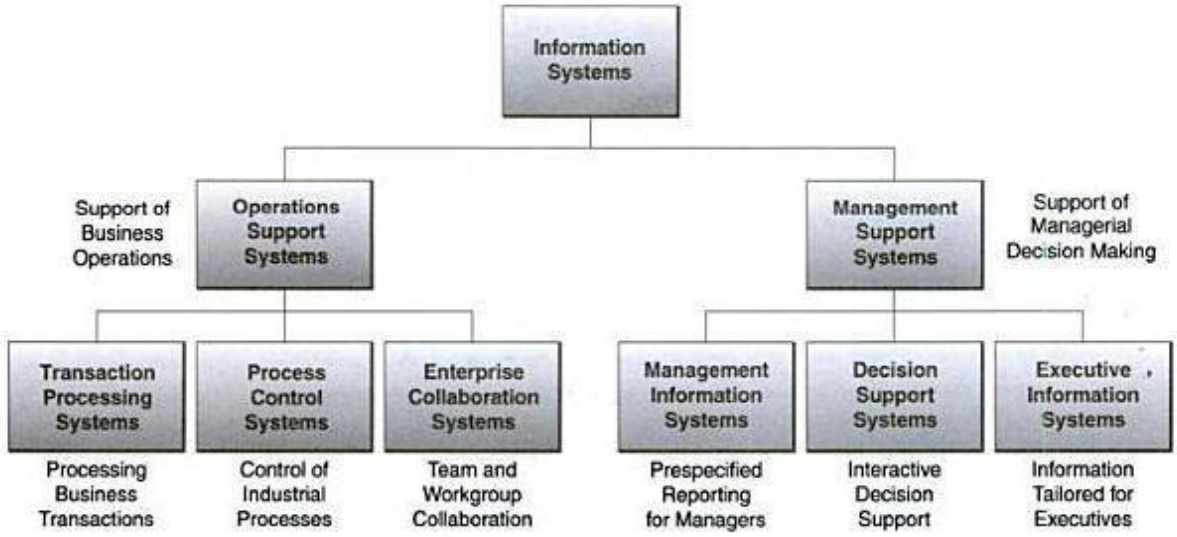
FIGURE 1.14
A business is an example of an organizational system where economic resources (input) are transformed by various business processes (processing) into goods and services (output). Information systems provide information (feedback) on the operations of the system to management for the direction and maintenance of the system (control) as it exchanges inputs and outputs with its environment.



- different types of System

FIGURE 1.5 Operations and management classifications of information systems. Note how this conceptual overview emphasizes the main purposes of information systems that support business operations and managerial decision making.



Operations Support Systems. They produce a variety of information products for internal and external use.

The role of a business firm's operations support systems is to efficiently process business transactions, control industrial processes, support enterprise communications and collaboration, and update corporate databases.

- **transaction processing systems** – they process transactions in two ways namely: (i) *batch processing* – transactions data are accumulated over a period of time and processed periodically. (ii) *real time processing* – data are processed immediately after transaction occurs.
- **Process control systems –** monitor and control physical processes.
- **Enterprise collaboration systems** – enhance team and workgroup communications and productivity;

include applications that are sometimes called *office automation systems.*

a) State the fundamental role of IS in business and explain neatly with the diagram?

- the fundamental role of IS in business
- role of IS in business diagram

2 There are three fundamental reasons for all business applications of information technology. They are found in the
three vital roles that information systems can perform for a business enterprise.

- Support of its business processes and operations.
- Support of decision making by its employees and managers.
- Support of its strategies for competitive advantage.

FIGURE 1.2 The 3 major roles of the business applications of IS

3.a) What do you need to know about IMS? What are the components in system?

- IMS
- components in system with a neat figure

Data v/s information – data means raw facts or observations. Information means data that have been converted into meaningful or useful context for specific end users.

Network Resources – this concept emphasizes that communications technologies and networks are a fundamental resource component of all IS. They include:

- **Communications Media.** Examples include twisted-pair wire, co-axial and fibre-optic cables; and microwave, cellular, and satellite wireless technologies.
- **Network Infrastructure.** Examples include communications processors such as modems and internetwork processors and communications control software such as network OS and Internet browser packages.

4. a) Explain with a neat figure, the business competitive strategies and competitive forces that appear in the market place.

- competitive strategies
- competitive forces
- competitive forces with a neat figure

Figure 2.1 illustrates that businesses can counter the threats of competitive forces that they face by implementing

- **Cost Leadership Strategy.** Becoming a low-cost producer of products and services in the industry, or finding ways to help its suppliers or customers to reduce their costs or to increase the cost of their competitors.
- **Differentiation Strategy.** Developing ways to differentiate a firm's products and services from

its competitors' or reduce the differentiation advantages of competitors.

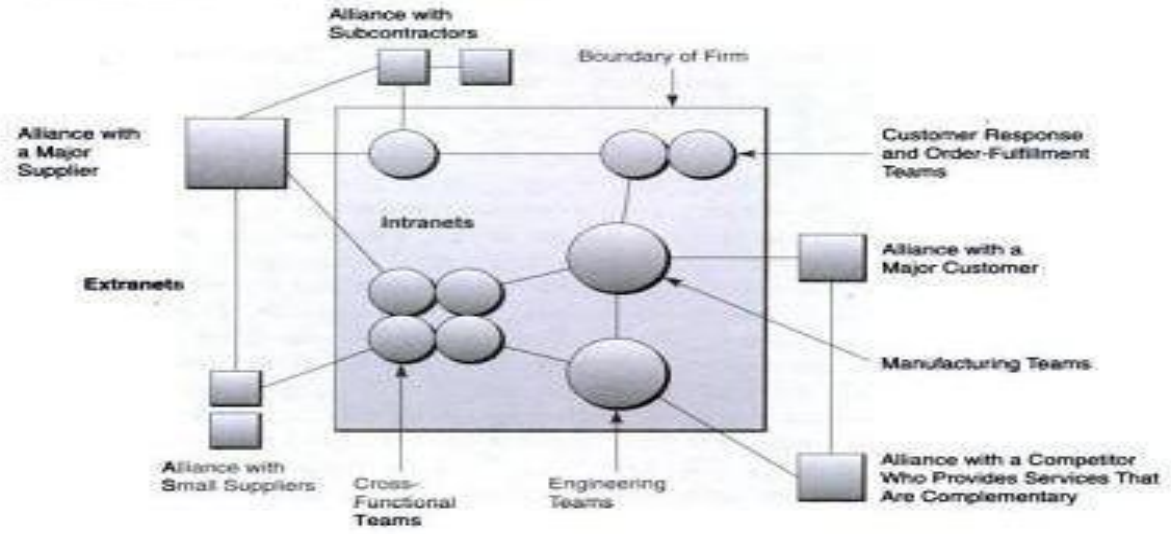
- **Innovation Strategy.** Finding new ways of doing business. This may involve the development of unique products and services, or entry into unique markets or market niches.
- **Growth Strategies.** Significantly expanding a company's capacity to produce goods and services, expanding into global markets, diversifying into new products and services, or integrating into related products and services.
- **Alliance Strategies.** Establishing new business linkages and alliances with customers, suppliers, competitors, consultants, and other companies. These linkages may include mergers, acquisitions, joint ventures, forming of "virtual companies".

5.a) Illustrate a virtual company with necessary elements. Describe the basic business strategies of virtual companies and involve in case study and explain.

- virtual company with necessary elements
- basic business strategies of virtual companies
- case study
- virtual company with a neat figure

A virtual company (*virtual organization or virtual corporation*) is an organization that uses IT to link people,
organizations, assets and ideas. It has also developed alliances and extranet links that form **interenterprise information systems** with suppliers, customers, subcontractors, and competitors. Thus, virtual companies create flexible and adaptable virtual workgroups and alliances keyed to exploit fast-changing business opportunities.

5 FIGURE 2.11 A virtual company uses the Internet, intranets, and extranets to form virtual workgroups and support alliances with business partners.



6.a) With the help of a neat figure, explain the enterprise application architecture illustrating the major cross functional enterprise applications and their interrelationships

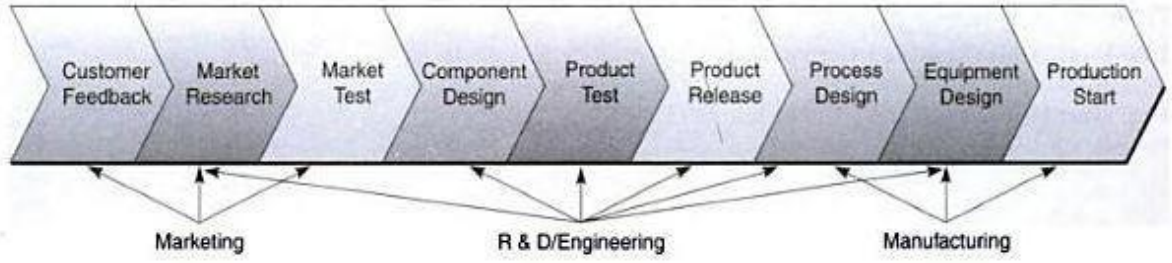
- enterprise application architecture

cross functional enterprise applications and their interrelationships

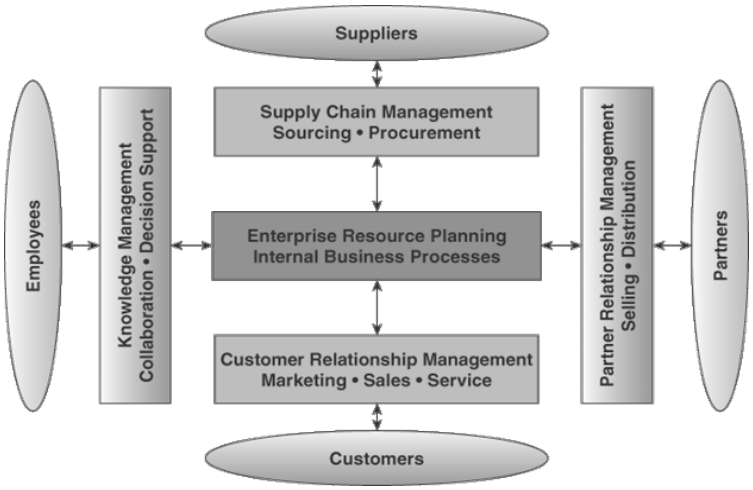
- enterprise application architecture illustrating

Many companies today are using IT to develop integrated **cross-functional enterprise systems** that cross the
boundaries of traditional business functions in order to reengineer and improve vital business processes all across the enterprise. This improves the efficiency and effectiveness of business processes, and develops strategic relationships with customers, suppliers and business partners.

FIGURE 7.1 The new product development process in a manufacturing company. This is an example of a business process that must be supported by cross-functional information systems that cross the boundaries of several business functions.



Many companies first moved from functional mainframe-based **legacy systems** to integrated cross-functional **client/server** applications. This typically involved installing **enterprise resource planning, supply chain management, or customer relationship management** software from SAP America, Oracle and others. These software focuses on supporting integrated clusters of business processes involved in the operations of a business.



The fig below presents an Enterprise application Architecture ,which illustrates the interrelationships of the major cross-functional applications.

- Provides a conceptual framework which helps to visualize the basic components, processes, and interfaces of major e-business applications.

- Focuses on accomplishing fundamental business processes in concert with Customers, Suppliers, Partners, employee stakeholders.
- Thus, Enterprise Resource Planning.

7. Explain the case study of introduction of On Q system at Hilton Hotels corporation as an application for data driven hospitality.

- Hilton Hotels
- data driven hospitality

systems can provide them with key business benefits such as faster, more accurate order processing, reductions in inventory levels, quicker times to market, lower transaction and material costs, and strategic relationships with their suppliers.

- They are aimed at helping a company achieve agility and responsiveness in meeting the demands of their customers and the needs of their business partners.

8. Explain the Information System Activities.

- Hardware
- People
- Software
- Internet
- Data

Basic activities of IS are:

Input of Data Resources – data about business transactions and other events must be captured and prepared for processing by the **input** activity. End users take care of recording and editing of data entries into a computer system. Later it is transferred to machine-readable medium [magnetic disk] until needed for processing. Example: optical scanning of bar-coded tags on merchandise.

Processing of Data into Information – data are typically subjected to **processing** activities such as calculating, comparing, sorting, classifying, and summarizing. These activities organize, analyse, and manipulate data, thus converting them into information for end users. The quality of any data stored in an information system must also be maintained by a continual process of correcting and updating activities.

Output of Information Products – information in various forms is transmitted to end users and made available to them in the **output** activity. The goal of IS is the production of appropriate **information products** for end users like messages, reports, forms and graphic images, which may be provided by video displays, audio responses, paper products, and multimedia.

Storage of Data Resources – storage is the IS activity in which data and information are retained in an organised manner for later use. Stored data are commonly organized into a variety of data elements and databases.

Control of System Performance – an IS should produce feedback about its input, processing, output and storage activities. This feedback must be monitored and evaluated to determine if the system is meeting established performance standards.