

**Internal Assessment Test 3 – November 2019**

Sub:	Information Management System	Sub Code:	15IS753	Branch:	ISE		
Date:	19/11/2019	Duration:	90 min's	Max Marks:	50		
		Sem / Sec:	VII - B		OBE		
<u>Answer any FIVE FULL Questions</u>					MARKS	CO	RBT
1	Explain in detail about the DSS and DSS components.				[10]	CO3	L2
2	Illustrate the components of an expert system and explain the functionalities in detail?				[10]	CO3	L3
3	Explain briefly the major business application areas of Artificial Intelligence.				[10]	CO3	L2
4	Explain web-based knowledge management system				[10]	CO3	L2
5	Describe the OLAP and its operations, in detail.				[10]	CO3	L2
6	Explain B2C and B2B categories of E-commerce with an example.				[10]	CO3	L2
7	Explain e - payment system with an example.				[10]	CO3	L2
8	With the help of a neat figure, explain the E-commerce Success factors.				[10]	CO3	L2

**Solution**

**1. Explain in detail about the DSS and DSS components.**

**Decision Support Systems (DSS)**

- Analytical models
- Specialized databases
- A decision maker's own insights and judgments
- An interactive, computer-based modeling process

**DSS Components**

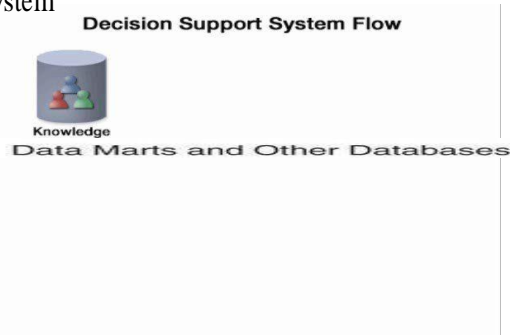
**Model Base**

Definition:

- Software component that consists of models used in computational and analytical

routines that mathematically express relationships among variables

Decision Support System



**Management Information Systems (MIS)**

Definition:

- An information system that produces information products that support many of the

day-to-day decision-making needs of managers and business professionals

### **Management Reporting Alternatives**

- Periodic Scheduled Reports
- Exception Reports
- Demand Reports and Responses
- Push Reporting

## **2. Illustrate the components of an expert system and explain the functionalities in detail?**

### **Expert System Benefits**

- Faster and more consistent than an expert
- Can have the knowledge of several experts
- Does not get tired or distracted by overwork or stress
- Helps preserve and reproduce the knowledge of experts

### **Expert System Limitations**

- Limited focus
- Inability to learn
- Maintenance problems
- Developmental costs

### **Suitability Criteria for Expert Systems**

Suitability Criteria for Expert Systems
<ul style="list-style-type: none"><li>• <b>Domain:</b> The domain, or subject area, of the problem is relatively small and limited to a well-defined problem area.</li><li>• <b>Expertise:</b> Solutions to the problem require the efforts of an expert. That is, a body of knowledge, techniques, and intuition is needed that only a few people possess.</li><li>• <b>Complexity:</b> Solution of the problem is a complex task that requires logical inference processing, which would not be handled as well by conventional information processing.</li><li>• <b>Structure:</b> The solution process must be able to cope with ill-structured, uncertain, missing, and conflicting data, and a problem situation that changes with the passage of time.</li><li>• <b>Availability:</b> An expert exists who is articulate and cooperative, and who has the support of the management and end users involved in the development of the proposed system.</li></ul>

## **3. Explain briefly the major business application areas of Artificial Intelligence.**

### **Artificial Intelligence Uses:**

- Design jet engines
- Monitor factory equipment and signal when preventative maintenance is needed
- Gain insights into human genome for pharmaceutical research
- Detect credit card fraud

Case #2: Business Value of AI

### **AI Benefits:**

- Data mining systems sift instantly through a deluge of data to uncover patterns and

relationships that would elude an army of researchers

- Companies can predict sales and other customer behaviors

### **Challenges in AI Systems:**

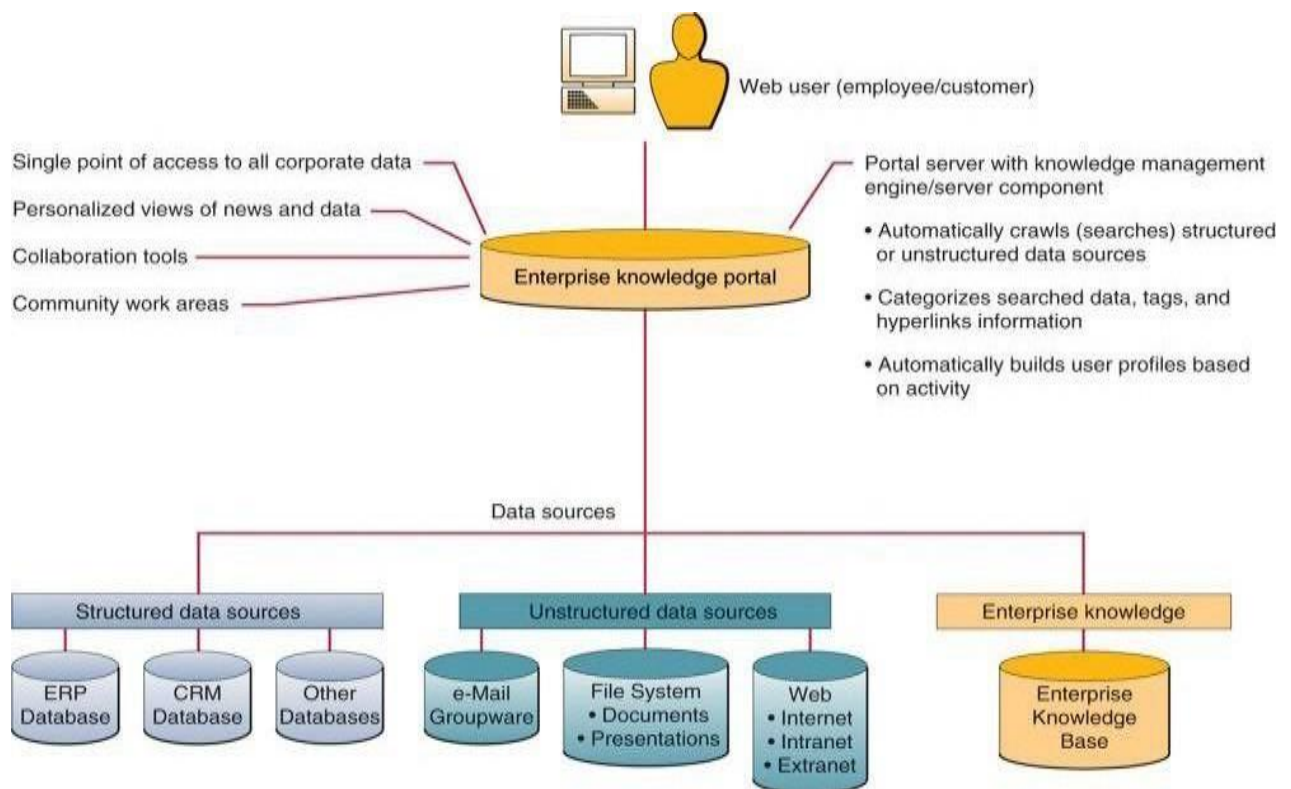
- Getting transaction data
- Dealing with disparate sources of data
- What is the business value of AI technologies in business today?  
from the case to illustrate your answer.

## **4. Explain web-based knowledge management system**

### **Enterprise Knowledge Portals**

#### **Definition:**

Entry to corporate intranets that serve as their knowledge management systems.



## **5. Describe the OLAP and its operations, in detail.**

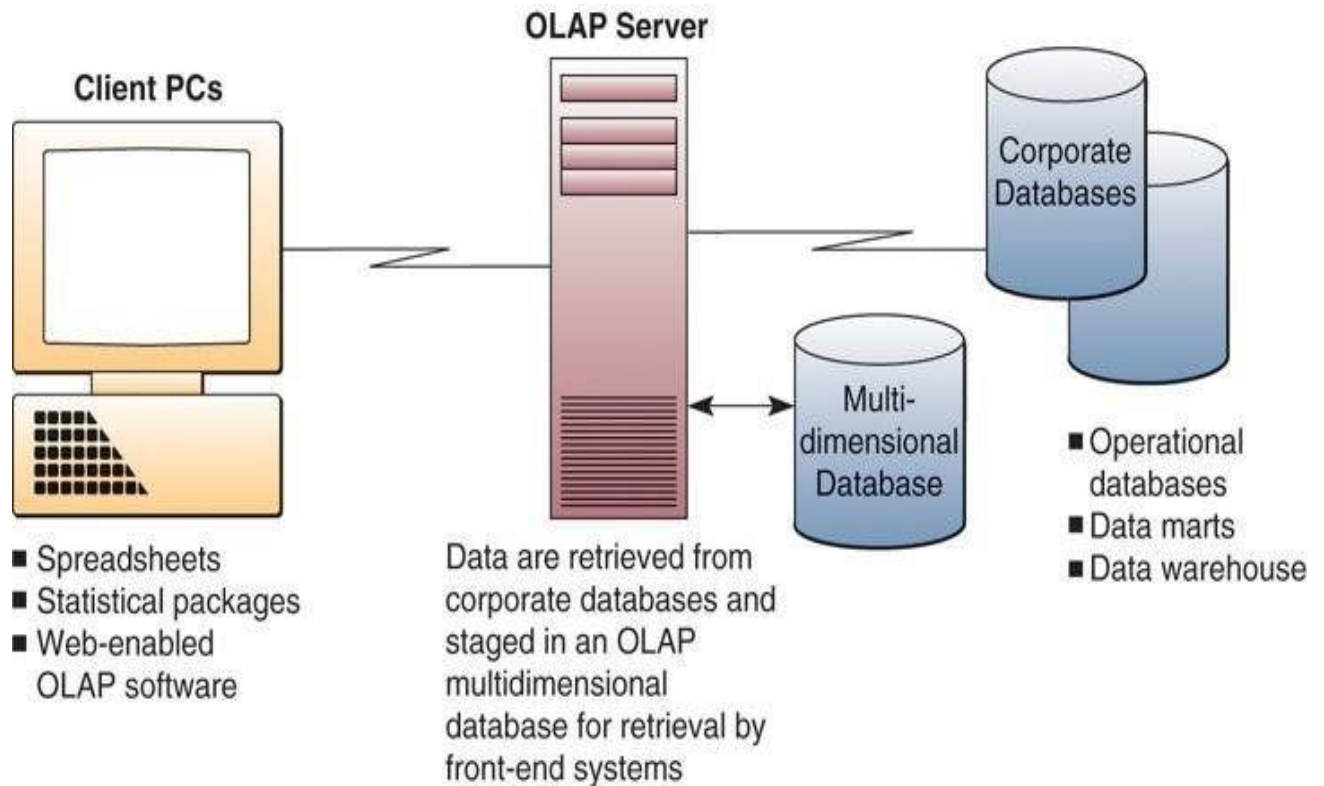
#### **Definition:**

- Enables managers and analysts to interactively examine and manipulate large amounts of detailed and consolidated data from many perspectives

#### **Analytical Operations**

- Consolidation – aggregation of data
- Drill-down – detail data that comprise consolidated data
- Slice and Dice – ability to look at the database from different viewpoints

### **OLAP Technology**



**6. Explain B2C and B2B categories of E-commerce with an example.**

Many e-business enterprises are moving toward offering full service B2C and B2B e-commerce portals supported by integrated customer-focused processes and internetworked supply chains.

•Companies must evaluate a variety of e-commerce integration or separation alternatives and benefit trade-offs when choosing a clicks and bricks strategy and e-commerce channel.

Summary

•Businesses typically sell products and services to consumers at e-commerce websites that provide attractive Web pages, multimedia catalogs, interactive order processing,

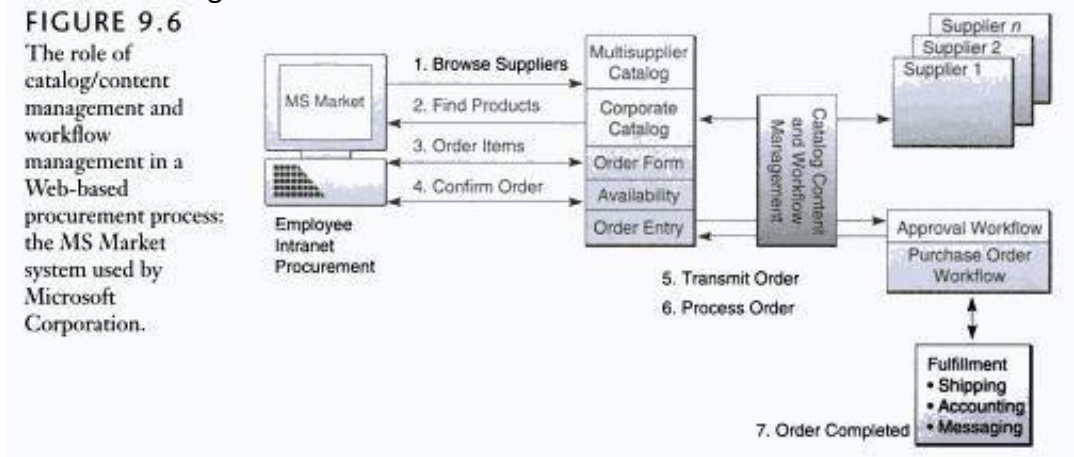
secure electronic payment systems, and online customer support.

**Business-to-business** applications of e-commerce involve electronic catalog, exchange, and auction marketplaces that use Internet, intranet, and extranet websites and portals to unite buyers and sellers.

**7. Explain e - payment system with an example.**

e-commerce payments are also complex because of the wide variety of debit and credit alternatives and financial institutions and intermediaries that may be part of the process. Therefore, a variety of **electronic payment systems** have evolved over time.

**Web payment processes** - most e-commerce systems on the web (B2C) depend on credit card payment processes. But many B2B systems rely on more complex payment processes based on the use of purchase orders as shown in figure 9.6

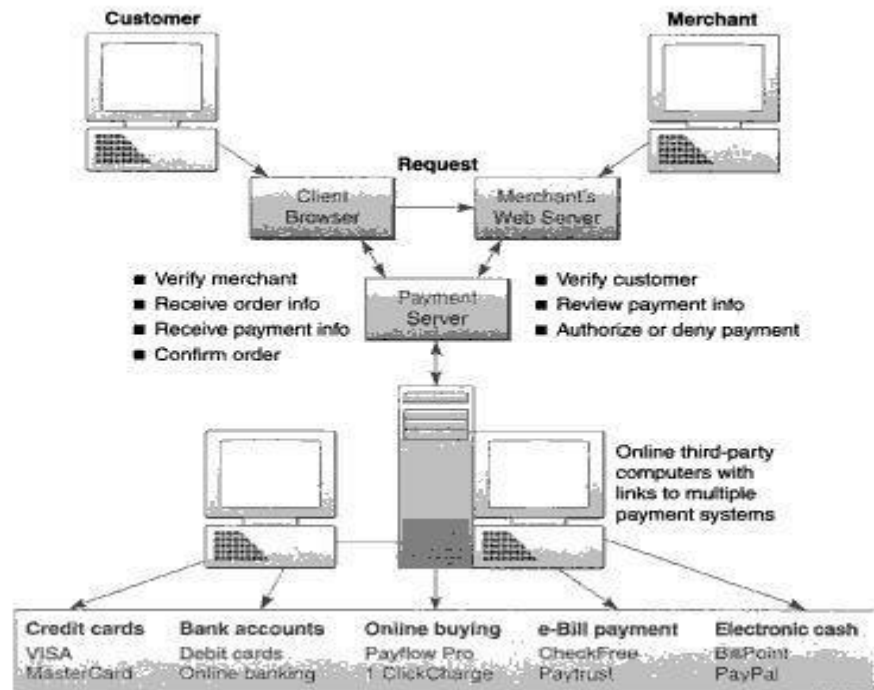


However both types of e-commerce typically use an electronic *shopping cart* process, which enables customers to select products from website catalog displays and put them temporarily in a virtual shopping basket for later

## INFORMATION MANAGEMENT SYSTEMS NOTES

checkout and processing. Figure 9.7 illustrates and summarises a B2C electronic payment system with several payment alternatives.

**FIGURE 9.7**  
An example of a secure electronic payment system with many payment alternatives.



**Electronic Funds Transfer (EFT)** systems are a major form of electronic payment systems in banking and retailing industries. They use IT to capture and process money and credit transfers between banks and businesses and their customers. For example, banking networks support teller terminals at all bank offices and automated teller machines (ATMs) at locations throughout the world. Banks, credit card companies, and other businesses may support pay-by-phone services. This makes it possible for you to use a credit card or debit card to instantly pay for gas, groceries or other purchases at participating retail outlets.

### Secure Electronic Payments

When you make an online purchase on the Internet, your credit card information is vulnerable to interception by *network sniffers*, software that easily recognizes credit card number formats. Several basic security measures are being used to solve this security problem:

- Encrypt (code and scramble) the data passing between the customer and merchant.
- Encrypt the data passing between the customer and the company authorizing the credit card transaction or,
- Take sensitive information online.

For example, many companies use the Secure Socket Layer (SSL) security method developed by Netscape Communications that automatically encrypts data passing



between your Web browser and a merchant's server. However, sensitive information is still vulnerable to misuse once it's decrypted (decoded and unscrambled) and stored on a merchant's server. So a digital wallet payment system was developed.

The Secure Electronic Transaction (SET) standard for electronic payment security extends this digital wallet approach. SET has been agreed to by VISA, MasterCard, IBM, Microsoft, Netscape, and most of the industry players. See figure 9.8

**FIGURE 9.8**  
VeriSign provides electronic payment, security, and many other e-commerce services.



## 8. With the help of a neat figure, explain the E-commerce Success factors.

### e-Commerce Success Factors

- Personal Attention – personal web pages, personalized product recommendations, Web advertising and e-mail notices, and interactive support for all customers
- Community Relationships – virtual communities of customers, suppliers, company representatives, and others via newsgroups, chat rooms, and links to related sites



