

K.S.R. COLLEGE OF ENGINEERING (Autonomous)

R 2018

SEMESTER - II

BA18216

INFORMATION TECHNOLOGY IN MANAGEMENT

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Objective(s):

1. To understand the basic concept of information system and different model of information technology
2. To know the different types operating systems and various applications
3. To Understand the concept of system development.
4. To Discuss the importance of information system and its uses in various departments of organizations
5. To Aware of various new information systems solutions like ERP data warehousing and E – Governments

UNIT - I INTRODUCTION TO INFORMATION SYSTEMS

[09 Hrs]

Information Concepts - System Concepts- Information system: definition & components-Computer Based Information Systems- Business Information Systems- Business Model

UNIT - II SYSTEMS AND APPLICATION SOFTWARE

[09 Hrs]

Software - Systems software - Operating systems – Current, Workgroup and Enterprise - Operating system - Application Software - Overview of application software - Personal application software - Group application software - Enterprise application software

UNIT - III SYSTEM DEVELOPMENT

[09 Hrs]

Modern Information system - Overview of Systems Development - Systems Development Life Cycles - Factors affecting systems development success - Designing computer based methods.

UNIT - IV FUNCTIONAL ASPECTS OF MIS

[09 Hrs]

MIS - Financial Management Information Systems - Manufacturing Management Information Systems - Marketing Management Information Systems - Human Resource Management Information Systems - Knowledge Management System - Geographical Information System - Overview of Decision Support system.

UNIT - V IT INITIATIVES

[09 Hrs]

E- Business, e-governance, ERP, SCM, E- Records, e-CRM, Data warehousing and Data Mining, Business Intelligence, Pervasive computing, CMM.

Total (L: 45 T: 0) = 45 Periods

Course Outcomes: On completion of this course, the student will be able to:

1. Familiarize with the basic information concepts and technologies used in business environment.
2. Know the different classification of system software and application software.
3. Identify the better processes for developing and implementing Information Technology.
4. Apply information technology in functional areas and hierarchical levels
5. Acquire the skills of different role of information Technology in business organizations.

Reference Books :

1. Ralph Stair & George Reynolds, Principles of Information Systems Thomson Learning 8th Edition, 2015
2. Jawadekar, Management Information System TMH – 4th Edition 2014
3. David Whiteley, Introduction to Information Systems, Palgrave Macmillan 2016
4. James O'Brien, Management Information System TMH 2015
5. Kenneth C. Laudon & Jane P. Laudon, Management Information System, PHI, 2016

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CLASS : I MBA

SUBJECT : BA18216 - INFORMATION TECHNOLOGY IN MANAGEMENT

UNIT - 1

2 Mark Questions:

1. What is data?

Data is the plural form of datum-a single piece of information. the structure of the records in a database can be specified by using different types of data elements. for example, each employee record includes data elements to represent the employees name,address,department etc.

2. What is information?

Information is derived from data and useful in solving problems.information, therefore, is a potential function of data.

Information is the meaning that a human assigns data by means of the known conventions used in their representation.

3. What is difference between data and information?

- Data is used as input for the computer system. Information is the output of data.
- Data is unprocessed facts figures. Information is processed data.
- Data doesn't depend on Information. Information depends on data.
- Data is not specific. Information is specific.
- Data is a single unit. A group of data which carries news are meaning is called Information.
- Data doesn't carry a meaning. Information must carry a logical meaning.
- Data is the raw material. Information is the product.

4. What is information technology?

IT (information technology) is a term that encompasses all forms of technology used to create, store, exchange, and use information in its various forms (business data, voice conversations, still images, motion pictures, multimedia presentations, and other forms, including those not yet conceived).

5. What is information system?

A combination of hardware, software, infrastructure and trained personnel organized to facilitate planning, control, coordination, and decision making in an organization.

IS (information system) is the collection of technical and human resources that provide the storage, computing, distribution, and communication for the information required by all or some part of an enterprise . A special form of IS is a management information system (MIS), which provides information for managing an enterprise.

6. What are the components of information system?

- People
- Hardware
- Software
- Data
- Network

7. Who is system analyst?

An individual in charge of designing, modifying, or analyzing various systems to ensure compatibility and user effectiveness. System analysts may work independently, but are often part of a larger information technology unit that keeps technical aspects of a company running smoothly. System analysts do not focus on hard-coding, but more on evaluating the code and making suggestions

8. What are the major activities of information system?

- Input of data resources
- Processing of data in to information
- Output of information products
- Storage of data resources
- Control of system performances

9. Explain two application of information technology?

- Building a customer focuses business
- Reengineering business processes

10. What are the skills essential for a system analyst?

- Technical skills
- Interpersonal skills
- Management skills
- Analytical skills

11. What are the main multiphases roles of system analyst?

- Innovator
- Mediator
- Project leader
- Change agent

12. Define system.

A system can be simply Defined as a group of interrelated or interacting elements forming a unified whole. Many examples of systems can be found in the physical and biological sciences, in modern technology, and in human society.

13. Define software.

Organized information in the form of operating systems, utilities, programs, and applications that enable computers to work.

Software consists of carefully-organized instructions and code written by programmers in any of various special computer languages. Software is divided commonly into two main categories: (1) System software: controls the basic (and invisible to the user) functions of a computer and comes

usually preinstalled with the machine. See also BIOS and Operating System. (2) Application software: handles multitudes of common and specialized tasks a user wants to perform, such as accounting, communicating, data processing, word processing.

14. Define hardware.

Physical equipment that makes up a computer system, such as circuit boards, keyboard and mouse, monitor, printer, power supply, storage devices. Contrasts with software.

15. Define DBMS.

Computer program that catalogs, indexes, locates, retrieves, and stores data, maintains its integrity, and outputs it in the form desired by a user. Unlike a data processing system (which manipulates and transforms data), a DBMS performs only minimal mathematical operations. Its overall purpose is to organize and manage data, and make it available on demand.

16. What is Transaction processing system?

An informational scheme for the collection, storage, retrieval and modification of transactions made by an organization. An example of a transaction processing system commonly used in business are the systems employed by major credit card companies found in almost every retail store.

17. What is a business model?

Description of means and methods a firm employs to earn the revenue projected in its plans. It views the business as a system and answers the question, "How are we going to make money to survive and grow?"

12 Mark Questions:

1. Briefly Explain the features of valuable information.
2. Explain the system Concepts.
3. Explain the various classifications of E-Commerce business models.
4. Discuss the software issues and Trends.
5. Name the any four operating systems that support the personal, workshop and enterprise spheres of influence.
6. Explain the Combination of operating systems.
7. Discuss the role of IT in industry and Business
8. Explain briefly the different components that comprise modern information system.
9. What are the advantages of using the internet as the infrastructure for electronic commerce?
10. Name and analyses the features of five E- business models.
11. Explain the different online payment facilities available in electronic commerce.

UNIT – 2

2 Mark Questions:

1. What is Software?

Software consists of computer programs that control the workings of computer hardware.

2. What is computer programs?

Computer programs are sequences of instructions for the computer.

3. Define Documentation?

Documentation describes the program functions to help the user operate the computer system.

4. What is systems software?

Systems software is the set of programs that coordinates the activities and functions of the hardware and other programs throughout the computer system.

5. Define Application Software.

Application software consists of programs that help users solve particular computing problems.

6. What is mean by operating systems?

An operating system is a set of programs that controls the computer hardware and acts as an interface with applications

7. List the Various combinations of OS.

1. Single computer with single user 2.Single computer with multiple users 3.Multiple computers.4. Special purpose computers.

8. List the functions of OS.

1. Performing common computer hardware functions 2.Providing a user interface and input/ output management 3.Providing a degree of hardware independence 4. Managing systems memory 5.Managing processing tasks 6.Providing networking capability 7.controlling access to system resources 8.Managing files.

9. What is mean by graphical user interface?

A graphical user interface uses pictures and menus displayed on screen to send commands to the computer system.

10. List the Current operating systems.

1.Microsoft PC Operating Systems 2.Apple computer operating systems 3.Linux

11. List the Workgroup operating Systems.

1.Windows server 2.Unix 3.Netware. 4.Red hat Linux 5. Mac Os X server

12. List the Utility Programs.

1.Hardware utilities 2. Virus Detection and Recovery Utilities 3.File – Compression Utilities 4.Spam and POP up Blocker Utilities 5. Network and Internet utilities 6. Server and Mainframe Utilities 7.Other Utilities

13. What is mean by Proprietary software?

A company can develop a one of a kind program for a specific application is called Proprietary software.

14. Who is application service Provider?

An application service provider is a company that can provide the software, support and computer hardware on which to run the software from the user facilities.

15. List the personal application Software.

1.Word processing 2.Spreadsheet analysis 3.Database applications 4.Graphics program 5.Personal information Managers 6.Online Information Services 7.Software suites and Integrated software packages

16. Define Programming Languages.

OS and application software are written in coding schemes called programming Languages

12 Mark Questions:

1. What is the difference between systems and application software?
2. How do software bugs arise?
3. Identify and briefly discuss two types of user interfaces provided by an operating system.
4. What is a software suite? Give several examples?
5. Name four operating systems that support the personal workgroup, and enterprise spheres of influence.
6. What is middleware?
7. Define the term utility software and give two examples.
8. Identify the two primary sources for acquiring application software.
9. Identify the two primary sources for acquiring application software.
10. What is an application service provider? What issues arise in considering the use of one?
11. What is open source software? What is the biggest stumbling block with the use of open source software?
12. Briefly discuss the advantages and disadvantage of frequent software upgrades.
13. What is freeware? Give two examples?

UNIT - 3

2 Mark Questions:

1. What is mean by systems Development?

Systems development is the activity of creating or modifying existing systems it is called systems development.

2. Who are all participants in Systems Development?

1. Manager
2. Software programmer's
3. Technical specialist's
4. vendors and suppliers
5. Users
6. System stakeholders
7. External companies

3. List the stages of System development.

1. Problems with existing systems
2. Desire to exploit new opportunities
3. Increasing competition
4. Desire to make more effective use of information
5. Organizational growth
6. Merger or acquisition
7. Change in market or external environment
8. New laws or regulations
9. Perception of problems
10. Systems development process initiated

4. List the process of Traditional systems Development Life Cycle.

1. Systems Investigation
2. Systems analysis
3. Systems Design
4. Systems Implementation
5. Systems maintenance and Review.

5. Define Systems Investigation.

Systems investigation is to identify potential problems and opportunities and consider them in light of the goals of the company.

6. What is meant by feasibility Analysis?

Feasibility analysis, which assesses technical economic, legal operational and schedule feasibility

7. What is mean by Technical feasibility?

Technical feasibility is concerned with whether the hardware, software, and other system components can be acquired or developed to solve the problem.

8. Define Economic Feasibility.

Economic feasibility determines whether the project makes financial sense and whether predicted benefits offset the cost and time needed to obtain them.

9. What is a subsystem?

Components that make up systems may actually be other smaller systems may be made up of levels of systems or subsystems.

10. List the Phases of SDLC.

1. Feasibility study
2. Determination of systems Requirements
3. Design of the system
4. Development of Software
5. Systems Testing
6. Systems implementation
7. Systems Maintenance

11. What is mean by Systems Testing?

Once the programs are tested individually, then the system as a whole needs to be tested. During testing. The system is used experimentally to ensure that the software does not fail.

12. Define methodology.

Methodology is a step by step plan for achieving some desired result.

13. What is a structured methodology?

Structured refers to step by step process, with each step building on the previous one.

14. What DFD?

Data flow diagrams are widely used graphic tools for describing the movement of data within or outside the system.

12 Mark Questions:

1. What is system development life cycle? Discuss the importance of various phases of SDLC in brief.
2. What are the advantages and disadvantages of structured methods of systems development over that of traditional methods?
3. List out and explain the advantages of using structured methodologies in systems development.

4. Identify various input, output formats for your college MBA admissions process.
5. Explain at least two structured methodologies used in systems development.
6. What are the factors affecting systems development success?
7. Explain the system development based on computer based methods.

UNIT - 4

2 Mark Questions:

1. What is functional information system?

A functional information system is a system that provides detailed information for a specific type of operations activity or related group of activities, as well as summarized information for management control of such activities.

2. What is manufacturing information system?

A management information system that is targeted for use anywhere production is taking place. Modern management information systems are generally computerized and are designed to collect and present the data which managers need in order to plan and direct operations within the company.

3. What is financial information system?

A financial information system (FIS) accumulates and analyzes financial data used for optimal financial planning and forecasting decisions and outcomes. An FIS is used in conjunction with a decision support system, and it helps a firm attain its financial objectives because they use a minimal amount of resources relative to a predetermined margin of safety. An FIS can be thought of as a financial planner for electronic commerce that can also produce large amounts of market and financial data at once obtained from financial databases worldwide.

4. What is marketing information system?

A system that analyzes and assesses marketing information, gathered continuously from sources inside and outside an organization. Timely marketing information provides basis for decisions such as product development or improvement, pricing, packaging, distribution, media selection, and promotion. See also market information system.

5. What is accounting information system?

A subset of management information system (MIS), AIS is responsible for providing timely and accurate financial and statistical reports for internal management decision making, and for external parties such as creditors, investors, and regulatory and taxation authorities.

6. What is decision support system?

Computer system designed to provide assistance in determining and evaluating alternative courses of action. A DSS (1) acquires data from the mass of routine transactions of a firm, (2) analyzes it with advanced statistical techniques to extract meaningful information, and (3) narrows down the range of choices by applying rules based on decision theory. Its objective is facilitation of 'What if' analysis and not replacement of a manager's judgment.

7. What is geographical information system?

Software that combines features of cartography and databases to overlay reference information (such as number of customers or prospects residing in a locality, or the extent of soil erosion in an area) on computer-generated maps.

8. What is executive information system?

Not a piece of hardware or software, but an infrastructure that supplies to a firm's executives the up-to-the-minute operational data, gathered and sifted from various databases. The typical information mix presented to the executive may include financial information, work in process, inventory figures, sales figures, market trends, industry statistics, and market price of the firm's shares. It may even suggest what needs to be done, but differs from a decision support system (DSS) in that it is targeted at executives and not managers.

9. What is meant by knowledge management?

Strategies and processes designed to identify, capture, structure, value, leverage, and share an organization's intellectual assets to enhance its performance and competitiveness. It is based on two critical activities: (1) capture and documentation of individual explicit and tacit knowledge, and (2) its dissemination within the organization.

10. What is an international information system?

They are distributed information systems which support similar business activities in highly diverse environments commonly found across country boundaries.

11. What is Quality control?

An aspect of the quality assurance process that consists of activities employed in detection and measurement of the variability in the characteristics of output attributable to the production system, and includes corrective responses.

12. What is quality assurance?

Often used interchangeably with quality control (QC), it is a wider concept that covers all policies and systematic activities implemented within a quality system. QA frameworks include (1) determination of adequate technical requirement of inputs and outputs, (2) certification and rating of suppliers, (3) testing of procured material for its conformance to established quality, performance, safety, and reliability standards, (4) proper receipt, storage, and issue of material, (5) audit of the process quality, (6) evaluation of the process to establish required corrective response, and (7) audit of the final output for conformance to (a) technical (b) reliability, (c) maintainability, and (d) performance requirements.

13. Define Electronic Data interchange.

The predecessor to electronic commerce, EDI has been suitable only for large North American and European corporations and banks. Firms using EDI are interconnected through a global computer network, independent of internet although attempts are underway to integrate the two networks. It facilitates computer-to-computer exchange of electronic documents (such as purchase orders, advance shipment notices, and invoices) without human intervention or human readable (paper or electronic) documents. EDI eliminates manual re-keying of data, cuts order processing costs, increases data accuracy, improves cycle time, and makes just-in-time deliveries possible. Like internet it is a standards based system independent of the type of computer hardware and software employed.

14. Define Forecasting.

A planning tool that helps management in its attempts to cope with the uncertainty of the future, relying mainly on data from the past and present and analysis of trends.

Forecasting starts with certain assumptions based on the management's experience, knowledge, and judgment. These estimates are projected into the coming months or years using one or more

techniques such as Box-Jenkins models, Delphi method, exponential smoothing, moving averages, regression analysis, and trend projection. Since any error in the assumptions will result in a similar or magnified error in forecasting, the technique of sensitivity analysis is used which assigns a range of values to the uncertain factors (variables). A forecast should not be confused with a budget.

15. Define Executive information system.

Not a piece of hardware or software, but an infrastructure that supplies to a firm's executives the up-to-the-minute operational data, gathered and sifted from various databases. The typical information mix presented to the executive may include financial information, work in process, inventory figures, sales figures, market trends, industry statistics, and market price of the firm's shares. It may even suggest What needs to be done, but differs from a decision support system (DSS) in that it is targeted at executives and not managers.

16. Define Expert system.

Not a piece of hardware or software, but an infrastructure that supplies to a firm's executives the up-to-the-minute operational data, gathered and sifted from various databases. The typical information mix presented to the executive may include financial information, work in process, inventory figures, sales figures, market trends, industry statistics, and market price of the firm's shares. It may even suggest What needs to be done, but differs from a decision support system (DSS) in that it is targeted at executives and not managers.

17. Define knowledge management.

Strategies and processes designed to identify, capture, structure, value, leverage, and share an organization's intellectual assets to enhance its performance and competitiveness. It is based on two critical activities: (1) capture and documentation of individual explicit and tacit knowledge, and (2) its dissemination within the organization

12 Mark Questions:

1. Identify the Major functional areas of business. Explain why they need to be integrated for effective use.
2. In What ways can functional information systems benefit organizations?
3. What types of outputs might be computerized in production information systems?
4. What are personal information systems? What are the typical components of it?
5. What kinds of information do the information systems gather that is useful for product planning?
6. Enumerate sources of marketing information.
7. Describe various, Input, output, processing and control variables of a financial information system.
8. Describe various. Input, output, processing and control variables of a marketing information system with suitable examples.
9. What are the components of a DSS?
10. What are the different barriers to global e- commerce? How to overcome them?
11. Critically evaluate Expert Systems.
12. What are the components of a DSS?

UNIT - 5

2 Mark Questions:

1. What is E-business and What are relations between e-business and e-commerce?

Firm which, in contrast to an electronic commerce firm, conducts its day-to-day business functions over the internet and/or other electronic networks such as electronic data interchange (EDI). Electronic business includes collaborating with distributors on sales promotions, interacting with and servicing the customers, and conducting joint research with business partners.

E-business=e-marketing-commerce-operations

2. What is e-governance?

E-governance is a form of e-business in governance comprising of processes and structures involved in deliverance of electronic services to the public it also involves collaborating with business partners of the government by conducting electronic transactions with them.

3. Why e-governance is needed?

- Pressure from customers/citizens
- desire to emulate best practice in private sector.
- reduce administrative costs
- better levels of service
- new kinds of services
- attract overseas investors
- control fraud

4. What is ERP?

Accounting oriented, relational database based, multi-module but integrated, software system for identifying and planning the resource needs of an enterprise. ERP provides one user-interface for the entire organization to manage product planning, materials and parts purchasing, inventory control, distribution and logistics, production scheduling, capacity utilization, order tracking, as well as planning for finance and human resources. It is an extension of the manufacturing resource planning (MRP-II). Also called enterprise requirement planning

5. What is supply chain management?

Management of material and information flow in a supply chain to provide the highest degree of customer satisfaction at the lowest possible cost.

Supply chain management requires the commitment of supply chain partners to work closely to coordinate order generation, order taking, and order fulfillment. They thereby create an extended enterprise spreading far beyond the producer's location.

6. What is E-CRM?

e-crm provides companies with a means to conduct interactive, personalized and relevant communication with customers across both electronic and traditional channels. it utilizes a complete view of the customer to make decisions about messaging, offers and channel delivery. it thus synchronizes communications across disjointed customer facing systems.

7. What is meant by Data Warehouse?

Massive database (typically housed on a cluster of servers, or a mini or mainframe computer) serving as a centralized repository of all data generated by all departments and units of a large organization. Advanced data mining software is required to extract meaningful information from a data warehouse. The term was coined by the US consultant W. H. Inmon.

8. What is data mining?

Sifting through very large amounts of data for useful information. Data mining uses artificial intelligence techniques, neural networks, and advanced statistical tools (such as cluster analysis) to reveal trends, patterns, and relationships, which might otherwise have remained undetected. In contrast to an expert system (which draws inferences from the given data on the basis of a given set of rules) data mining attempts to discover hidden rules underlying the data. Also called data surfing.

9. What is business intelligence?

Computer-based techniques used in spotting, digging-out, and analyzing 'hard' business data, such as sales revenue by products or departments or associated costs and incomes. Objectives of a BI exercise include (1) understanding of a firm's internal and external strengths and weaknesses, (2) understanding of the relationship between different data for better decision making, (3) detection of opportunities for innovation, and (4) cost reduction and optimal deployment of resources. See also competitive intelligence.

10. What is pervasive computing?

The presence of interconnected computing devices, such as motes, smart appliances, and wearable computers, which permeate a given environment. Pervasive computing may be used, for instance, to enable immediate access to computing tasks under nearly all circumstances, or for keeping track of innumerable objects and/or persons regardless of where they are. Also called ubiquitous computing

11. Explain software capability maturity model.

The Capability Maturity Model (CMM) is a methodology used to develop and refine an organization's software development process. The model describes a five-level evolutionary path of increasingly organized and systematically more mature processes.

12. What are the e-business models?

E-Commerce or Electronics Commerce business models can generally be categorized in following categories.

- Business - to - Business (B2B)
- Business - to - Consumer (B2C)
- Consumer - to - Consumer (C2C)
- Consumer - to - Business (C2B)
- Business - to - Government (B2G)
- Government - to - Business (G2B)
- Government - to - Citizen (G2C)

13. Define middleware.

Software that facilitates exchange of data between two application programs within the same environment, or across different hardware and network environments. Three basic types of middleware are (1) communication middleware, (2) database middleware, and (3) system middleware.

14. Define reengineering.

Systematic starting over and reinventing the way a firm, or a business process, gets its work done. Defined by Michael Hammer and James Champy (in their 1993 book 'Reengineering The Corporation') as "Fundamental rethinking and radical redesign of business process to achieve dramatic improvements in critical measures of performance such as cost, service, and speed." See also Business Process Reengineering.

15. Define BPR.

Thorough rethinking of all business processes, job definitions, management systems, organizational structure, work flow, and underlying assumptions and beliefs. BPR's main objective is to break away from old ways of working, and effect radical (not incremental) redesign of processes to achieve dramatic improvements in critical areas (such as cost, quality, service, and response time) through the in-depth use of information technology. Also called business process redesign.

16. What is CMM?

A process improvement technique for evaluating how efficiently a company is able to deliver technology products to its customers. Capability Maturity Model Integration is often associated with software development, and seeks to integrate the various steps in the development process.

12 Mark Questions:

1. What is e-Business and What are relations between E-Business and E-commerce?
2. Why E-Governance is needed?
3. Explain about ERP.
4. What is supply chain Management?
5. Narrate the E-CRM.
6. Discuss about data warehouse.
7. Explain the scope of business Intelligence.
8. What security Techniques are used with intranets and internet?
9. Mention the types of computer crime.
10. How does hacking and cracking is treat for organizations?
11. Describe the data warehouse framework and the kinds of data stored in it.
12. List out the strategic use of data warehousing.
13. Benefits of enterprise resource planning.
14. Limitations of enterprise resource planning.

1. CASE STUDY

Anheuser-Busch (AB), the largest brewing company in the USA, was founded in 1852 as Bavarian Brewery. It was renamed E. Anheuser & Co. in 1860 after it was acquired by Eberhard Anheuser. In 1864, Adolphus Busch joined the company, which went on to become AB. The popular Budweiser was introduced in 1876, followed by Michaelob in 1896.

In 2008, the merger of AB with Belgium-based InBev resulted in the creation of Anheuser-Busch InBev NV, one of the top five consumer product companies in the world, as of 2011. For the year ending December 2010, AB-InBev generated revenue of US\$ 36 billion and managed a portfolio of more than 200 brands.

In the late 1990s, in the US, AB had around 750 national-level distributors who employed more than 8,400 sales representatives. These representatives were responsible for distributing AB's products to more than 450,000 retailers spread across the country...

Questions for Discussion:

1. How can information give a company a competitive advantage? Discuss with reference to BudNET?
2. How can BudNET be used in designing promotional campaigns for the company?

2. CASE STUDY

This case is about a new threat to data security in organizations called pod slurping. Pod slurping refers to the stealing of data from the organizations network with portable data storage devices like iPods, digital cameras, pen drives and smart phones. Addressing this threat posed tough challenges to organizations as it is the employees of the organization who could be stealing the data. While data security experts were grappling with measures to discourage data theft by employees using such portable devices, the organizations were on the horns of a dilemma. Banning popular gadgets such as iPods could alienate the employees, and in many cases it was practically impossible to put a blanket ban on portable storage devices as they were not only ubiquitous but also very useful. Experts felt that organization's part might hurt the morale of the employees, breed disloyalty, and lower productivity. Moreover, this treat was expected to intensify in the future as these portable devices were getting more sophisticated and acquiring wireless capabilities.

Discuss:

1. The treats posed to data security in organizations by advanced technology (in this case, the portable data storage devices like MP3 players)
2. The control measures to be put in place to protect the data in the organization.
3. The dilemma faced by the IT and Human resources departments of the organization in dealing with such sensitive issues.