

CHAPTER - 2

Remarks

COMPUTER APPLICATIONS

OBJECTIVES OF THIS LESSON

This lesson is aimed to make you understand the use of computers in different walks of life. Though there are several computer applications but readers will be able to understand the use of computers in certain areas as under:

- Computer applications in education and uses of computers in education
- How computers may assist teachers and also explains computer-based teaching and learning
- Computer applications in commerce and marketing, concept of **marketing**, business processes, e-commerce
- CAD (computer aided design), CAM (computer aided manufacturing) and Simulations
- Computer applications in management, functions of management and use of IT in management

STRUCTURE OF THIS LESSON

- 2.1 Introduction
- 2.2 Computer Applications in Education
 - 2.2.1 Uses of Computers in Education
 - 2.2.2 Assistance to Teachers
 - 2.2.3 Computer-Based Teaching and Learning
- 2.3 Computer Applications in Commerce and Marketing
 - 2.3.1 Marketing
 - 2.3.2 Business Processes
 - 2.3.3 E-Commerce
 - 2.3.4 Industry
 - 2.3.5 Robots
 - 2.3.6 CAD (Computer Aided Design)
 - 2.3.7 CAM (Computer Aided Manufacturing)
 - 2.3.8 Simulations
- 2.4 Computer Applications in Management
 - 2.4.1 Functions of Management
 - 2.4.2 Use of IT in Management

Summary of the Lesson

Self Assessment Questions and Exercises

2.1 INTRODUCTION

Computers have become an essential part of modern human life. Owing to the widespread use of computers in every sphere, Life in today's world would be unimaginable without computers. Computers have made human lives better and happier. There are endless uses of computer in different fields of work.

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Computers are used in so many fields in our daily life. From Engineers to Doctors, Students, Teachers, and Government Organization they all use computers to perform specific tasks, for entertainment or just to finish office work. Computers have made our life easier. With greater precision and accuracy and less time taking computers can do a lot in short time while that task can take a lot of time while doing manually. Computers have taken industries and businesses to a whole new level. They are used at Home for work and entertainment purposes, at Office, in hospitals, in government organizations.

2.2 COMPUTER APPLICATIONS IN EDUCATION

The science and technology has been changing our life ever since its inception. Especially the greatest invention of human mind that most of the times defeat the human mind itself, i.e. the computer has brought out enormous changes to our society. Its contribution towards education sector has been truly marvellous.

Computers have taken the education systems in the entire world to a different level altogether. It is now used in education sector in various ways and has changed the way it earlier looked to a great degree.

2.2.1 Uses of Computers in Education

Following are few significant uses of computers in education:

1. Effective Classroom Teaching and Learning

The traditional classes have become modern and high-tech with the advent of computers. Students now see multimedia presentations, clips, images, etc. with the help of computers. This gives them a better experience of education as compared to the monotonous blackboard teaching. This way, the power of students to remember or recollect the taught concepts increases as the classroom learning becomes interesting.

2. Online and Distance Learning

Computers not only strengthen the traditional education system but also provide a new mode of pursuing educational courses and degrees. This mode is called as **online distance learning** mode of education. Through this mode a student can pursue a course, degree or training sitting at home with the help of a computer and internet connection. The curriculum of these online courses is similar to the traditional mode of pursuing the same. Online education system offers several benefits to the students which they can't avail in traditional education system. This is the reason why millions of people are attracted to online education as of today and this count will only increase day by day.

3. Improved Research Work

Computers help students of schools, colleges and universities in their research work. Gone are the days when students would go to libraries, and other Knowledge processing units to complete their research work. With the help of computers in network society students now pursue their research work with ease and get ample amount of information for the same with easy clicks.

4. New Areas of Education

Computers not only are useful in education sector but are also the reason for some fields of education. There are several educational courses that exist because of the computers. Some of these courses are IT training, web designing, hardware and networking, etc. Students pursuing these courses have bright future ahead as the computers have actually become the need of today.

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5. Scaling Up Education

Education today is no more confined to the walls of a classroom. It has rather gone global. Students, with the help of computers, interact with students from all over the world. They discuss and deliberate on various topics of common interests, brainstorm with international students and seek advice of international teachers and researchers. Indeed computers have armed the education field with some great features.

2.2.2 Assistance to Teachers

Computers are helping the teachers in the following areas:

- a. **Classification of pupils:** Computers help in classification of children according to their abilities and evaluating their performance.
- b. **Preparing time-table:** Computers help in preparing time-table, schedules, etc.
- c. **Maintenance of progress cards:** Computers maintain progress cards and preserve them efficiently and confidentially.
- d. **Tutorial and dialogue:** Computer can play effectively the role of the tutor. It helps the teacher in engaging students in tutorial work. There is tutorial interaction and dialogue.
- e. **Education to physically challenged:** Computers can be used in providing education to physically challenged people by several means.
- f. **Repetition:** A lesson if not understood once can be repeated number of times and thoroughly understood by even an average student. Computer can work according to the tune of the student.
- g. **Guidance:** Computer helps the teacher in providing information/data for guidance and reference.
- h. **Immediate feedback:** Computers helps the teacher in providing immediate feedback to students for better interaction and motivation.
- i. **Problem-solving and creativity:** Computers can be used to develop problem-solving ability and creativity among the students.
- j. **Laboratory and practical work:** Computers can supplement laboratory and practical work especially in science and technology subject.
- k. **Training through stimulate techniques:** The computer can be used to give training to the students through stimulated and gaming techniques.

2.2.3 Computer-Based Teaching and Learning

Computers are used to provide the methods of teaching in different ways. There are number of methods in which educational institutions can use computer to educate the students. Much computer-based educational software are available, which students can learn to read, to count, or to speak a foreign language. Software that combines the thrills of games with real information content is becoming most popular. Some organizations are using information technology in their employee training programs.

Remarks**Computer Aided Learning (CAL)**

Computer Aided Learning could be described as the use of information technology to assist in the teaching and enhance learning process. Information technology may be able to aid us in reducing the time spent on creation and maintenance of teaching materials (power point presentations, Lectures in word documents, Flash media files etc). It is also reducing the administrative load associated with teaching and research.

Computer Based Training (CBT)

Computer based training is a difficult term to adequately define because it encompasses various modes of instruction and has evolved from the simplest definition, an interactive learning experience between the learner and computer in which the computer provides the majority of the stimulus, the learner must respond, and the computer analyzes the response and provides feedback to the learner.

Computer-based training is about using computers to help train people. It is not necessarily about training people to use computers. Computer based training works, compared with traditional techniques; it can bring many additional benefits to any organization, their training department and their students. For example:

- Students can readily acquire new skills at their own pace and at times that do not conflict with their work schedules.
- Training times can usually be reduced.
- Retention of course material is usually greater.
- Interactive, visually stimulating, easily absorbed and easily available material encourages students to undertake training.
- Planning and timetabling problems can be reduced or eliminated.
- Essential skills can be taught and refreshed whenever and whenever needed.
- The quality and consistency of the training material of students, locally or at remote places.
- Timely and high quality training on demand leads to increased efficiency.

Compared to traditional classroom training methods, students using computer based training absorb similar material faster and retain more of the information they are taught. CBT is a low cost solution for educating people. You can train a large number of people easily.

Benefits of CBT

Some benefits of CBT are as follows:

1. The students can learn new skills at their own pace. They can easily acquire knowledge in any available time of their own choice.
2. Training time can be reduced.
3. Training materials are interactive and easy to learn. It encourages students to learn the topic.
4. Planning and timing problems are reduced or eliminated.
5. The skills can be taught at any time and at any place.
6. It is very cost effective way to train a large number of students.
7. Training videos and audios are available at affordable prices.

Computer Aided Learning (CAL)

Computer aided learning is the process of using information technology to help teaching and enhance the learning process. The use of computer can reduce the time that is spent on preparing teaching material. It can also reduce the administrative load of teaching and research. The use of multimedia

projector and PowerPoint presentations has improved the quality of teaching. It has also helped the learning process.

Distance Learning

Distance learning is a new learning methodology. Computer plays the key role in this kind of learning. Many institutes are providing distance learning programs. The student does not need to come to the institute. The institute provides the reading material and the student attends virtual classroom. In virtual classroom, the teacher delivers lecture at his own workplace. The student can attend the lecture at home by connecting to a network. The student can also ask questions to the teacher.

Online Examination

The trend of online examination is becoming popular. Different examination like GRE, GMAT and SAT are conducted online all over the world. The questions are marked by computer. It minimizes the chance of mistakes. It also enables to announce the result in time.

2.3 COMPUTER APPLICATIONS IN COMMERCE AND MARKETING

The use of computer technology in business provides many facilities. Businessmen are using computers to interact with their customers anywhere in the world. Many business tasks are performed more quickly and efficiently. Computers also help them to reduce the overall cost of their business. Computer can be used in business in the following ways.

2.3.1 Marketing

An organization can use computers for marketing their products. Marketing applications provide information about the products to customers. Computer is also used to manage distribution system, advertising and selling activities. It can also be used in deciding pricing strategies. Companies can know more about their customers and their needs and requirements etc.

Marketing applications provide information about the organization's products, its distribution system, its advertising and personal selling activities, and its pricing strategies. Marketing applications help managers to develop strategies that combine the four major elements of marketing: Products, Promotions, Place and Price.

Marketing is the process by which goods are sold and purchased. The aim of marketing is to acquire, retain, and satisfy customers. Modern marketing has evolved into a complex and diverse field. This field includes a wide variety of special functions such as advertising, mail-order business, public relations, retailing and merchandising, sales, market research, and pricing of goods.

Computers play a significant role in inventory control, processing and handling orders, communication between satellite companies in an organization, design and production of goods, manufacturing, product and market analysis, advertising, producing the company newsletter, and in some cases, complete control of company operations.

In today's extremely competitive business environment businesses are searching for ways to improve profitability and to maintain their position in the marketplace. As competition becomes more intense the formula for success becomes more difficult.

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Two particular things have greatly aided companies in their quests to accomplish these goals. These are :

- a) CAD/CAM and
- b) World Wide Web.

CAD/CAM

An important program has aided companies all over the world. Computer-aided design and computer-aided manufacturing (CAD/CAM) is the integration of two technologies. It has often been called the new industrial revolution. In CAD, engineers and designers use specialized computer software to create models that represent characteristics of objects. These models are analyzed by computer and redesigned as necessary. This allows companies needed flexibility in studying different and daring designs without the high costs of building and testing actual models, saving millions of dollars. In CAM, designers and engineers use computers for planning manufacturing processes, testing finished parts, controlling manufacturing operations, and managing entire plants. CAM is linked to CAD through a database that is shared by design and manufacturing engineers.

The major applications of CAD/CAM are mechanical design and electronic design. Computer-aided mechanical design is usually done with automated drafting programs that use interactive computer graphics. Information is entered into the computer to create basic elements such as circles, lines, and points. Elements can be rotated, mirrored, moved, and scaled, and users can zoom in on details. Computerized drafting is quicker and more accurate than manual drafting. It makes modifications much easier.

Desktop manufacturing enables a designer to construct a model directly from data which is stored in computer memory. These software programs help designers to consider both function and manufacturing consequences at early stages, when designs are easily modified.

More and more manufacturing businesses are integrating CAD/CAM with other aspects of production, including inventory tracking, scheduling, and marketing. This idea, known as computer-integrated manufacturing (CIM), speeds processing of orders, adds to effective materials management, and creates considerable cost savings.

World Wide Web

The World Wide Web is a hypertext based information service. It provides access to multimedia, complex documents, and databases. The Web is one of the most effective vehicles to provide information because of its visual impact and advanced features. It can be used as a complete presentation media for a company's corporate information or information on all of its products and services.

The recent growth of the world wide web (WWW) has opened up new markets and shattered boundaries to selling to a worldwide audience. For marketers the world wide web can be used to create a client base, for product and market analysis, rapid information access, wide scale information dissemination, rapid communication, cost-effective document transfers, expert advice and help, recruiting new employees, peer communications, and new business opportunities. The usefulness of the Internet or WWW depends directly on the products or services of each business. There are

different benefits depending upon the type of business and whether you are a supplier, retailer, or distributor.

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2.3.2 Business Processes

In every organization there are major business processes that provide the critical tasks such that customer bills, analyzing sales of various products in different locations etc. in business, computers are used as given:

a) Stock Exchange

Stock markets around the world are in transition. Brokers interconnected through a data communication network submit and receive bids using their computer workstations or interconnected computer display screens, where brokers match buyers with sellers, so that neither trading floor nor slips of paper are necessary.

b) Banks

Computerized banking have several benefits such as save the time and convenience for customer. International banking and the abilities to handle trading in multiple currencies are critical for international trade. The cheques are read by MICR (Magnetic Ink Character Reader). Banks use mainframe computer to maintain their customer accounts by dealing with the transaction generated as a result of withdrawals and deposits.

c) Departmental Store

People at the store level, cashiers enter sales data into sale terminals by waving a bar code scanner across a package's bar-coded prices and stock numbers. Bar codes are read by bar code readers, photoelectric scanners that translate the bar code symbols into digital forms. The price of a particular item is set with the store's computer and appears on the sales-clerk's point of sale terminal and on our receipt. Store and department manager who received report of store and department sales and inventory levels are indirect end users. Record of sales are input to the store's computer and used for accounting, restocking store inventory, and weeding out products that sell well. A security VCR (video cassette recorder) is widely used in department stores and other locations where aesthetics are priority. It is virtually impossible to tell where the camera is pointed, which makes it difficult for would-be camera avoiders to stay out of the camera's view range; that are equipped with a camera, and lens can be augmented with dummy cameras. VCRs use the tapes, hook up the same way, and have all of the standard features of today's consumer VCRs. Most importantly, they are just as easy to use. Security cameras are everywhere these days and the reason is quite clear; there is simply no better way to monitor home or business operations and ensures safety.

d) Office Automation

Office Automation (OA) refers to the movements toward automating office tasks. An office where workers performs different tasks. The management and administrative tasks performed in an office five general categories of activities like decision-making, data manipulation, document handling, communication, and storage. Offices have used advance computer technologies to perform various tasks in an office system such as for document management system, message handling system, and office support systems.

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e) Document Management System (DMS)

DMS include word processing, desktop publishing, reprographic, image processing, and archival storage applications. Word processing enable documents to be created and edited electronically as well as help to produce high quality memos, letters, proposals, reports, newsletters and brochures etc. which are used to send business community. Desktop publishing enables to make document in attractive form by the use of photos, artwork, graphical illustrations etc. spreadsheet is software package used to create a table of columns and rows used by people responsible for tracking revenues, expenses, profits, loses, statistical, mathematical and logical processing etc. Reprographics is the process of reproducing multiple copies of a document. Image processing allow document to be scanned and stored in image oriented data bases.

f) Message-handling system

It enables to send messages or documents from one location to other location through facsimile (FAX), electronic-mail (E-Mail), Voice Mail etc.

g) Office Support System

It enables to coordinate and manage the activities of work group. Groupware and desktop organizers are some examples of office support systems.

2.3.3 E-Commerce

E-commerce (electronic commerce) describes buying, selling, and exchanging of products, services, and information via computer network. The term e-commerce describes transactions conducted between business partners. There are many applications of e-commerce, such as home banking, shopping in electronic malls, buying stocks, finding a job, conducting an auction, collaborating electronically with business partners around the globe, marketing & advertising and providing customer service.

There are several types e-commerce like collaborative commerce, business to commerce, consumer to commerce, and Mobile commerce etc. Mobile satellite communications also promise to extend the global reach of voice, data and other services.

The following services of e-commerce are used most frequently in e-business.

a) Electronic Mail (E-mail)

The e-mail is a service that transports text messages (with attachments of videos, audio, documents) from sender to one or more receivers via computer. Voice mail systems capture, store, and transmit spoken messages.

b) Video Conferencing

Video conferencing is a type of conferencing in which video transmission over networks. It is an advance form of teleconferencing. Video conferencing should provide a complete simulation of a normal meeting environment, enabling both parties to see, hear and present material, just as if they were in the same room. It can speed up business process and procedures in the same way that the fax and e-mail have revolutionized the way we share information. Tangible benefits are most easily related to actual cost savings. The most obvious quantifiable saving is the cost of travel and the cost of the time wasted during travel.

c) **Electronic Shopping (E-Shopping)**

Almost all businesses now have website that allow Internet users to buy their goods or services. Shopping can take place using a computer at home, from work or at a cyber café and e-shop can be anywhere in the world working 24hours a day.

d) **Electronic Banking**

An electronic banking is also known as cyber-banking or online includes various banking activities conducted from home, a business, or on the road instead of a physical bank location.

2.3.4 Industry

Computers are used to control manufacturing system and continuous running of the machinery. These are also help in monitoring temperature, pressure, and also check the quality and accuracy, measurement needed in the manufacturing process.

2.3.5 Robots

A robot is an automatic programmable machine that moves and performs mechanical tasks. Robots are used in hundreds of applications from assembling and spray-painting cars, carrying out maintenance on overhead power cables, to testing blood samples, outer space experimental programs, in artificial satellites, and radioactive environments etc. robots can work in environment that are hazardous to humans, it can perform repetitive and boring task continuously without a break at high level of accuracy than human.

2.3.6 CAD (Computer Aided Design)

CAD (Computer Aided Design) are used for display designs and build production prototypes in software, test them as a computer object according to following given parameters:

- Compile Parts and quantities lists.
- Outline production and assembly procedures

Transmit the final different applications some of them like designing new car or aircraft, bridge and building. Making changes to a design requires a large number of complex calculations. A CAD system needs a high resolution monitors, input devices (mouse, keyboard, graphic tables, and scanners etc) and output devices (printers and plotters). CAD use often has the capability of displaying a three dimensional object and speedily rotating it in any direction using controls on the keyboard.

2.3.7 CAM (Computer Aided Manufacturing)

CAM (Computer Aided Manufacturing) is used to control all the part of a manufacturing process. CAM software uses digital design output, such as that from a CAD system, to directly control production machinery. CAM systems are manufactured following goods.

- Product can be made very accurately and consistently.
- Around the clock production is much cheaper.
- A product's design can be modified without the need of bringing production to a computer standstill.

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2.3.8 Simulations

A computer simulation is a special type of computer model, which recreates a system that might exist outside the computer. Simulations are often used to train people how to deal with situations that are too difficult, expensive or dangerous to recreate and practice using for real. For example a flight simulation, which is used to train pilots how to deal with situation that would be expensive and dangerous to practice using a real aircraft. A flight simulator consists of a working replica of the flight deck of an airplane.

2.4 COMPUTER APPLICATIONS IN MANAGEMENT

In every business, a computer is an essential tool for running the day-to-day operations, enhancing productivity and communicating with customers, suppliers and the public. Managers use computers for a variety of reasons, including keeping their teams on track, budgeting and planning projects, monitoring inventory and preparing documents, proposals and presentations.

2.4.1 Functions of Management

Effective management and leadership involve creative problem solving, motivating employees and making sure the organization accomplishes objectives and goals. There are five functions of management and leadership:

- planning,
- organizing,
- staffing,
- coordinating and
- controlling.

These functions separate the management process from other business functions such as marketing, accounting and finance.

a) *Planning*

The planning function of management controls all the planning that allows the organization to run smoothly. Planning involves defining a goal and determining the most effective course of action needed to reach that goal. Typically, planning involves flexibility, as the planner must coordinate with all levels of management and leadership in the organization. Planning also involves knowledge of the company's resources and the future objectives of the business.

b) *Organizing*

The organizing function of leadership controls the overall structure of the company. The organizational structure is the foundation of a company; without this structure, the day-to-day operation of the business becomes difficult and unsuccessful. Organizing involves designating tasks and responsibilities to employees with the specific skill sets needed to complete the tasks. Organizing also involves developing the organizational structure and chain of command within the company.

c) Staffing

The staffing function of management controls all recruitment and personnel needs of the organization. The main purpose of staffing is to hire the right people for the right jobs to achieve the objectives of the organization. Staffing involves more than just recruitment; staffing also encompasses training and development, performance appraisals, promotions and transfers. Without the staffing function, the business would fail because the business would not be properly staffed to meet its goals.

d) Coordinating

The coordinating function of leadership controls all the organizing, planning and staffing activities of the company and ensures all activities function together for the good of the organization. Coordinating typically takes place in meetings and other planning sessions with the department heads of the company to ensure all departments are on the same page in terms of objectives and goals. Coordinating involves communication, supervision and direction by management.

e) Controlling

The controlling function of management is useful for ensuring all other functions of the organization are in place and are operating successfully. Controlling involves establishing performance standards and monitoring the output of employees to ensure each employee's performance meets those standards. The controlling process often leads to the identification of situations and problems that need to be addressed by creating new performance standards. The level of performance affects the success of all aspects of the organization.

2.4.2 Use of IT in Management

The use of computers and Information Technology (IT)-based systems in mainstream businesses has redefined workplace practices, operational metrics and business models. Top management and key business executives have been able to leverage the various capabilities of computer-based systems and productivity software technologies to get a better handle on business operations, channelize employee productivity and address strategic goals. The importance of computers in management cannot be overstated.

Organisations that understand the strategic potential of information technology (IT) integrate it into everything they do. Their IT investments advance their business goals and work seamlessly with current people and processes.

Managers need to understand not only the basic functions of the corporate software tools used in the office but also the Internet and other external computing tools that can improve the way they manage their departments.

1. Business Planning

Business planning can take up a lot of a manager's time, but computer programs make it easier. From using email programs like Outlook or Google Mail to set appointments, tasks and deadlines to using financial tools to develop budgets and project proposals, using computers to

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plan the day-to-day activities of a business is essential. Managers also use the Internet to research their industries, the competition and to look for ideas to help them create plans to engage customers, win more business and succeed in the competitive world of business.

2. Record Keeping

Managers keep track of a lot of information that is vital to the company's success. From customer records to financial records to employee records, the data a company has to store are seemingly endless. Using computers to store and manage documents, files and records reduces the amount of physical storage a company needs and also allows managers to have easy access to their files using simple document search methods. Additionally, by keeping records, managers can easily share information about an employee's history and job performance with other managers in the company.

3. Communication

One of the most common uses for computers in business is communication. Communication is essential not only between employees but with customers as well. Many customer service departments use computers to log service issues and make a record of their resolutions. Using email and instant messaging programs allows employees to gather information from one another that they need to complete their jobs. It also allows managers to delegate work tasks and follow up on projects.

Computer networks connected over an intranet-based system or Web-based environment can communicate with one another. In modern businesses, business owners and enterprise decision makers need employees to communicate instantly with each other, collaborate and share files, information and relevant documents quickly in order to execute work-related tasks and pursuits. Use of e-mail systems, instant messaging tools and more recently social networking applications has also enhanced swifter communication with business partners, customers, suppliers and other key external stakeholders.

4. Transactions Management

Organizations and businesses perform thousands of transactions at varied customer and business partner –facing interfaces. Purchase managers, inventory system professionals and accounts and financial personnel need to keep track of invoices, purchase orders, payment gateways on organization websites and all transactions at the operational level.

Computer systems integrate varied transaction processes and activities and facilitate real-time tracking of transactions. IT applications speed the process of transaction activities and help in calculations, generation of accurate summaries and reports.

5. Decision Making

Computers, IT systems and allied software programs help companies to classify, arrange, systematize and analyze information. Use of CRM solutions, Enterprise Resource Planning (ERP) systems, Management Information Systems (MIS) and database systems enable companies to operationally manage business processes and functional areas. Market intelligence, sales reports and customer insights generated from such systems aid business managers, top management and project heads in important decision making processes.

Document Preparation

For creating spreadsheets, presentations, memos and other corporate documents, computers are essential in business. Managers need to have a basic understanding of common workplace productivity software such as Microsoft Office, but specialized industries such as advertising and marketing also require managers to work with more advanced programs like Adobe Photoshop and Illustrator to create visual materials for clients.

6. Improve Productivity

One of the primary purposes of deploying large-scale computer systems, software, networking and IT tools is to gain productivity on all levels in an organization. All departments, manufacturing and production facilities and offshore centers should be able to leverage the capabilities and of modern IT systems and technologies and function more effectively and efficiently. Used strategically, computers streamline employee workflows, operational activities and functional processes, ensure better control in business management and impact the bottom-line.

7. Role in Innovation Management

As the global economic crisis forces businesses to operate leaner, competition continues to accelerate at lightning speed. Simultaneously, consumers are clamping down on discretionary spending and demanding more value and options in the purchases they make.

Innovation management — or finding and realizing new sources of value — is key to helping businesses keep up with this constantly changing economic and competitive landscape.

With careful thought, planning, and ingenuity, IT can help businesses move from a closed innovation model to an open one, playing a pivotal role in capturing an increasingly elusive competitive advantage.

- Innovation management is a technology matter
- Innovation management—the long and short of it
- Harnessing technology for innovation is a strategy that makes sense

SUMMARY OF THE LESSON

You learnt the following in this lesson:

- Computers are used in so many fields in our daily life. From Engineers to Doctors, Students, Teachers, and Government Organization they all use computers to perform specific tasks, for entertainment or just to finish office work. Computers have made our life easier.
- Computers have taken the education systems in the entire world to a different level altogether. It is now used in education sector in various ways and has changed the way it earlier looked to a great degree.
- The traditional classes have become modern and high-tech with the advent of computers. Students now see multimedia presentations, clips, images, etc. with the help of computers.
- Computers not only strengthen the traditional education system but also provide a new mode of pursuing educational courses and degrees. This mode is called as **online distance learning** mode of education.
- Computers help students of schools, colleges and universities in their research work
- Computers not only are useful in education sector but are also the reason for some fields of education.

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- Education today is no more confined to the walls of a classroom. It has rather gone global.
- Computers are helping the teachers in the several areas classification of pupils, preparing time-table, maintenance of progress cards, tutorial and dialogue, and education to physically challenged.
- Computers are used to provide the methods of teaching in different ways.
- Computer Aided Learning could be described as the use of information technology to assist in the teaching and enhance learning process
- Computer-based training is about using computers to help train people. It is not necessarily about training people to use computers.
- Compared to traditional classroom training methods, students using computer based training absorb similar material faster and retain more of the information they are taught.
- Computer aided learning is the process of using information technology to help teaching and enhance the learning process.
- Distance learning is a new learning methodology. Computer plays the key role in this kind of learning. Many institutes are providing distance learning programs.
- An organization can use computers for marketing their products. Marketing applications provide information about the products to customers
- Marketing is the process by which goods are sold and purchased. The aim of marketing is to acquire, retain, and satisfy customers.
- In every organization there are major business processes that provide the critical tasks such that customer bills, analyzing sales of various products in different locations etc. in business
- E-commerce (electronic commerce) describes buying, selling, and exchanging of products, services, and information via computer network. The term e-commerce describes transactions conducted between business partners.
- CAM (Computer Aided Manufacturing) is used to control all the part of a manufacturing process. CAM software uses digital design output, such as that from a CAD system, to directly control production machinery.
- A computer simulation is a special type of computer model, which recreates a system that might exist outside the computer.
- In every business, a computer is an essential tool for running the day-to-day operations, enhancing productivity and communicating with customers, suppliers and the public.
- There are five functions of management and leadership - planning, organizing, staffing, coordinating and controlling.

SELF ASSESSMENT QUESTIONS AND EXERCISES

1. What are computer applications in education?
2. What are different uses of computers in education?
3. How computers may be helpful to teachers?
4. What is computer-based teaching (CBT)? What are its benefits?
5. How computers may help in learning?
6. What are computer applications in commerce?
7. What is e-commerce? How is it useful?
8. How computers help in marketing?
9. What are business processes?
10. What do you understand by CAD (computer aided design) and CAM (computer aided manufacturing)?
11. What are Simulations?
12. What are computer applications in management?
13. What are major functions of management?
14. Discuss the use of IT in management?