

Introduction to IT ITeS Industry Class 9 Notes

Information Technology

IT refers to the creation, management, sharing, and exchange of information. IT includes all forms of information technology, such as computer hardware and software used for information creation, storage, and transfer.

IT has many advantages for a business, including increasing the number of potential customers it can reach, establishing business relationships with those customers, streamlining operations, cutting costs, increasing efficiency, maximising profit, minimising waste, improving customer service, fostering better relationships with important partners, and letting customers better direct the company's operations.

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Information Technology enabled Services (ITeS)

ITeS, also known as web-enabled services or remote services, refers to the entire operation that makes use of information technology to boost an organization's productivity.

These services offer a wide variety of career options, including positions in call centres, payroll, optimization management, revenue claims processing, medical billing, coding, and transcription, legal databases, back office operations, content development, GIS (geographical information system), web services, and Human Resource (HR) services, among other areas of business.

BPO services

The term "business process outsourcing" (BPO) refers to using an outside service provider to carry out corporate activities. BPO falls under IT services as well because IT is a highly valuable tool for enhancing business performance.

Some of the BPO services are as follows:

- (a) Financial and Accounting Services
- (b) Taxation and Insurance Services
- (c) E-Publishing and Web Promotion
- (d) Legal Services and Content Writing
- (e) Multimedia and Design Services
- (f) Document Management Services
- (g) Software Testing Services
- (h) Health Care Services

BPM industry in India

India's growth has been driven by the business process management (BPM) sector of the IT sector. The development of the IT BPM business has given India a variety of economic

and social benefits, including job creation, income growth, and export promotion, in addition to helping to boost the GDP and exports of the nation.

BPO Service Industry is doing exceptionally well in India because of the following advantages:

- (a) BPO service providers in India invest in hi-tech hardware and software to deliver the best of services. They follow quality checks to ensure error free and exceptional service.
- (b) Government of India is encouraging the BPO Industry in India by providing necessary infrastructure and logistical support.
- (c) BPO Industry in India is highly developed and capable of delivering numerous types of BPO services in exceptional quality.

Structure of the IT-BPM industry

The organisations within the IT-BPM industry are categorised along the following parameters:

- Sector the organisation is serving
- Type as well as range of offering the organisation provides
- Geographic spread of operations
- Revenues and size of operations

Multinational Corporations (MNCs) – MNCs have their corporate headquarters outside of India yet conduct business there as well as in other countries. They provide services to outside customers (domestic and/or international).

ISPs (Indian Service Providers) – ISPs began operating in India. The majority of these organisations are headquartered in India and have offices all over the world. There are some businesses that have concentrated on supplying exclusively Indian customers, although the majority have both domestic and international clientele.

Global In-House Centers (GIC) – GIC organisations do not provide services to outside clients; instead, they only meet the demands of their parent firm.

IT applications

Business, banking, insurance, education, marketing, healthcare, engineering design, the military, communication, animation, research, agriculture, and government are just a few of the application fields.

IT in home computing

Using a personal computer (PC) at home allows people to work from home, take care of family finances, play games, browse the web, send e-mail, make music, and engage in a variety of other activities.

IT in everyday life

We use washing machines, microwaves, and a variety of other goods with embedded software every day. A computer allows us to keep track of all of our vital work, schedules for appointments, and contact information.

IT in library

Many libraries today use computers. A barcode is attached to each book. This makes it simpler for the library to keep track of the books it has and whether a particular book is available.

IT at workplace

Computers and computer programmes are utilised in the workplace setting to improve office productivity. Modern company is dependent on the Internet and Office software.

IT in education

For teaching, learning, and assessment in education, computers and information technology are widely used. To create and transmit information to learners in a variety of formats, including still images, audio, video, and animation, software and hardware technology is used.

(a) ICT in the classroom

There are many ways in which the ICT is used for education in the classroom, such as

- e-learning classrooms;
- smart-board presentations;
- videos on experiments;
- creation of images and video;
- desktop publishing of magazines, letters and documents;
- educational games;
- learning using the CD-ROM media; and gathering educational information on the Internet.

(b) Education — anywhere anytime

Through the website www.epathshala.nic.in or a mobile app, each student in India has access to the NCERT textbook online. In addition to this, you can access educational materials on any topic through a wide range of websites and mobile apps.

To use WBT, you can also get in touch with an instructor or trainer online (Web-based Training). By reaching the unreached, education has therefore spread to remote regions.

(c) Teaching aids and media

ICT is used mostly as a teaching aid in schools to

- use pictures, animations and audio-visuals to explain subjects that are difficult to explain.

- make the lessons interesting using presentations.
- organise lessons using the computer.
- obtain the information relevant to the subjects.

(d) Learning Management System (LMS)

On the official website, a student or teacher can register for access to the LMS and many of the features offered by the LMS. Using LMS can benefit the student because it can be utilised to

- learn lessons anytime and anywhere.
- submit queries, getting replies and submit comments through forums.
- participate in the co-curricular activities via video.
- monitor the progress of their children (by parents).

IT in entertainment

A significant source of entertainment is the internet.

Using computers, one may download and watch movies, play games, talk, use multimedia, and add visual and aural effects.

IT in communication

Images, speeches, and messages are all forms of communication. Computers are used for video conferencing, email, chat, FTP, and other tasks.

IT in business

In commercial environments, computers are utilised for stock management, payroll computation, budgeting, sales analysis, and financial forecasting. E-commerce refers to the numerous business transactions that take place online.

Marketing, customer visits, product browsing, shopping basket checkout, tax and shopping, receipt generation, and order processing are all made easier by IT.

IT in science and engineering

Computer-aided design (CAD) or computer-aided manufacturing (CAM) software are used by scientists and engineers for drawing, designing, simulating, and testing the designs.

Scientists and engineers also use computers for completing difficult scientific computations. Computers are used to store a lot of information, carry out intricate calculations, and visualise three-dimensional objects.

IT in banking

Computers play a crucial role in today's banking system. A bank now conducts all of its business online. Computers keep track of the data and transactions related to the customer. The Internet is used for online transactions such as recurring deposits (e-RD), fixed deposits (e-FD), and money transfers (NEFT, RTGS) from one account to another.

IT in insurance

Insurance companies use computer databases to keep all records current. In insurance firms, procedures for policy continuance, starting date, next instalment date, maturity date, interest payable, survival benefits, and bonus are declared using computers.

IT in marketing

Computers are used in marketing to advertise items. By utilising the arts and graphics capabilities, it is possible to produce engaging commercials for a variety of products in order to fulfil the selling objective.

IT in health care

ICT is applied in the health industry in a variety of ways. The hospital management system is used to keep track of and manage patient records as well as different administrative tasks.

The ECG, EEG, ultrasound, and CT scan are all performed using computerised equipment. During complicated surgery, a number of measuring tools and surgical supplies are utilised to keep an eye on the health of the patients.

(a) Use of ICT in diagnosis

Various high-tech machines are used in the diagnosis and treatment of critical diseases.

Computerised Axial Tomography Machine (CAT)

This device allows for the creation of three-dimensional (3D) images of various bodily components. The diagnosis of diseases can be aided by these photos.

MRI (Magnetic Resonance Imaging Machine)

Strong magnetic fields and radio waves are utilised in MRI equipment to provide a computerised image of the body's internal organs. The use of digital images in the diagnosis and treatment of diseases is particularly beneficial.

Electrocardiogram (ECG) Machine

The heartbeat is tracked using an ECG equipment. Electrical impulses are generated while the heart pumps blood to various bodily parts. The electrical impulses are recorded by this device, which displays them as a graph.

Cardiac Screening Machine

This device shows the anatomy and physiology of the heart as well as the beating of the heart. This device may diagnose heart conditions, such as vein thinning, and then suggest a course of treatment.

EEG (Electro – encephalography) Machine

The brain's activity are captured by this device. The brain's electrical impulses are picked up by the tiny electrical probes attached to the head, which then display them on a computer screen.

Blood Sugar Testing Machine

This tool analyses a blood sample and calculates the blood glucose level.

Blood Pressure Measuring Machine

A person's blood pressure can be measured with this wristband-style gadget whether they are at rest or engaged in physical activity.

IT in the government and public service

Digital India and e-governance initiative of Government of India are best examples of IT in the government sectors. E-governance is the use of ICT applications by government and non-governmental organisations (NGOs) as well as international government agencies to communicate and offer a range of services to the public. There are numerous official government of India online pages for e-governance. E-governance has a number of benefits.

The computer system is used by the departments of income tax, sales tax, voter list preparation, and PAN card preparation. Online access to many government services is available. You can now pay your electricity bills online. The traditional voting slip and ballot box are replaced with electronic voting in government elections. Through the website of the State Election Commission, individuals can sign up to vote.