

# SECONDARY SCHOOL CURRICULUM

## CBSE

### **(E) INTRODUCTORY INFORMATION TECHNOLOGY** (CODE No. 165)

Computer has permeated in every walk of life. CBSE has taken first step towards Information Technology sensitivity. It has included the subject INTRODUCTORY INFORMATION TECHNOLOGY as an additional (optional) at the secondary level. This subject offers scope for computer-added learning. It also facilitates developing a generation of knowledge workers.

#### **Learning Objectives**

##### **General :**

1. To familiarize with basics of information technology
2. To develop basic skills of using tools for word processing, presentation and database management
3. To appreciate use of IT in various domains.

##### **Specific :**

1. Cognitive domain : Knowledge and understanding  
To develop basic understanding of IT system operations and information accessing tools
2. Psychomotor domain : Skills  
To develop skills in using tools of word processor, to manage database, to make graphs, to analyse reports using spreadsheets and to develop web pages.
3. Affective domain : Personality traits  
To develop habit of teamwork and structured presentation.

#### **CLASS IX**

##### **Unitwise Periods/weightage-theory and Practicals**

Unit	Topic	Period	Marks	
	Theory	Practical	Theory	Practical

**1 IT Basic 08 00 10 00**

**2 IT Tools** 30 60 30 30

Windows (8) (15)

MS-Office

\*MS-Word (8) (15)

\*MS-Power Point (8) (15)

\*MS-Excel (6) (15)

**3 IT Application** 02 20 00 30

**Total 40 80 40 60**

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**One paper Class-IX Time : 2½ hours Marks : 40**

## **THEORY**

### **Unit 1: IT BASICS**

Convergence of Technologies:

#### **Computer System:**

Characteristics of a computer, Basic applications of a computer, Components of a computer system- Central processing Unit (CPU), Visual Display Unit (VDU), Keyboard;

#### **Concept of Memory:**

Primary and Secondary Memory, RAM and ROM, Units of Memory-Byte, Kilobyte, Megabyte, Gigabyte, Terabyte Input/Output Devices:

Mouse, Joy Stick, Scanner, Microphone, OCR, MICR, Light pen, Bar code Reader, Digital Camera, Printer, Speaker, Plotter.

#### **Storage Devices :**

#### **Computer languages :**

Machine Language, Assembly Language and High level Languages, Role of Assembler and Compiler.

#### **Types of software:**

System, utility and Application software with examples

#### **Communication Technology :**

Need for networking, LAN, MAN, and WAN

**Data Communication Device :** Modem,

### **Intrdouction to Internet.**

#### **Content:**

Data, Information and multimedia;

## **UNIT 2 : IT TOOLS**

### **MS-Windows:**

Basic concept of an Operating System and its functions.

**Introduction of Windows :** Using Mouse and moving icons on the screen, My Computer, Recycle Bin, Task Bar, Start-menu and menu selection, running an application, Setting system date and time; Windows Explorer to view files, folders and directories, creating and renaming of files and folder, Opening and Closing of Windows, Minimise, Restore and Maximise forms of windows, Basic components of a Window: Desktop, Frame, Title Bar, Menu Bar, Status Bar, Scroll Bars (Horizontal

and Vertical), Using right button of the Mouse, Creating Shortcut, Basic Windows Accessories: Notepad, Paint, Calculator, Wordpad, using Clipboard;  
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## **MS-OFFICE**

### **MS Word:**

Introduction to a Word Processor, Creating and Saving a document, Editing and Formatting a Document; Text Style (B, I.U.), Font Type Size, changing color, alignment of text; Formatting paragraphs with line or paragraph spacing; adding headers and footers numbering pages, using grammar and spell check utilities, using subscript and superscript, inserting symbols, Print Preview, printing a document. Inserting Word Art, Clipart and Pictures, Page Setting, Bullets and Numbering, Borders and Shading, Format Painter, Find and Replace, Inserting Tables:  
Inserting, deleting-rows and columns, merging cells, splitting cells, using autoformat: Mail Merge

### **MS Power Point :**

Introduction to Presentation Graphics, Understanding the concept of Slide Shows, Basic elements of a slide, Different types of Slide Layouts, Creating and saving a Presentation, Different views of a slide: Normal view, Slide Sorter view and Slide Show, Editing and Formatting a slide: Adding Titles, Subtitles, Text Background, Watermark ; Headers and Footers, Numbering Slides;  
Inserting pictures from files, Animating pictures and Text with Sound Effects, Timing Text box, Pictures and Slides, Rehearse Timings, ungrouping and Grouping pictures from Clipart.

### **MS Excel:**

Introduction to Spreadsheets, Concept of Worksheets and workbooks, Creating and Saving a worksheet, Working with a spreadsheet: entering numbers, text, date/time, series using Auto Fill, Editing and formatting a worksheet including changing colour, size, font, alignment of text, Inserting or Deleting cells, rows and columns, Formulae-Entering a formula in a cell, using operators (+, -, \*.) ( in formulae, Relative referencing, Absolute referencing and mixed referencing, Printing a worksheet. Use Simple Statistical functions: SUM(), AVERAGE(), MAX(), MIN(), IF(), (without compound statements); inserting tables in worksheet, Embedding Charts of various types: Line, Pie, Scatter, Bar and Area in a worksheet.

## **UNIT 3: IT APPLICATIONS**

Students are suggested to work on the following areas using MS-Word, MS-Powerpoint and MExcel on topics implementing the tools covered in the course.

### **Domains :**

#### **Documentation:**

- \* Informal letter
- \* Formal letter
- \* Report Writing
- \* Greeting card
- \* Poster making

#### **Presentation :**

- \* School Magazine

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- \* Environment and Pollution
- \* Product Advertisement

\* Any topic specific from text book (any subject)

**Analysis Reporting :**

- \*Cricket Record
- \*Weather Report
- \* School/Class Result

**NOTE:**

Sample documents/ presentations/spreadsheets on the above topics are made available on CBSE CD-ROM

Teachers are requested to demonstrate some other popular software for word processing, presentation, and spreadsheet, which support Hindi and/or some other Indian language(s).

[Lead Office is an example of Office suite (word processor with an interface to MS-Office, Lotus Smartsuite, Pagemaker, Corel Draw etc.) with complete support to Indian language]

**CLASS IX**

**PRACTICALS**

Practical Paper Examination Duration Marks Period in year  
One 4 Hours 60 80

**(A) HANDS ON EXPERIENCE (4 Exercises)**

30 Marks

**Design of a Practical Question Paper**

Instructions on the basis of syllabus, distribution of marks and conduction of practical examination have been provided. The examiner is advised to set the question paper according to the prescribed curriculum and distribution of marks.

I Windows Operating System 6 Marks

II MS Word 8 Marks

III MS Excel 8 Marks

IV MS Powerpoint 8 Marks

**I. WINDOWS operating system:\***

To test some of the following basic system operations on file/folder(s):

- \_ Create
- \_ Rename
- \_ Copy/Cut/Paste
- \_ Delete
- \_ Commands related to Notepad/Wordpad/Paint
- \_ Using Clipboard

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**II. MS Word:\***

A Paragraph in MS Word incorporating some of the tools given below to be tested during the examination

- \_ Editing and Formating text and paragraph.
- \_ Page and Paragraph Setup
- \_ Inserting pictures and WordArt

**III. MS Power Point:\***

A Power Point presentation with 2/3 slides using some of the tools given below to be tested during the examination:

- \_ Editing and formating slides
- \_ Inserting pictures and sounds
- \_ Animating pictures and text wth sound effects

**IV. MS Excel:\***

A problem in spreadsheet related to some of the tools given below to be tested during the examination:

- \_ Formating cells and data
  - \_ Functions & Formulae (Relative, absolute and Mixed reference)
  - \_ Charts
- \* Printouts of the documents(s) should be attached with the answer sheet

**(B) IT Application Report File 20 Marks**

Students are supposed to make a IT Application Report File Containing Real life assignments/ presentations using MS Word, MS PowerPoint and MS Excel on at least 15 topics from the domain:

- \_ At least 5 documents of MS Word
- \_ At least 5 presentations of MS Power Point
- \_ At least 5 spreadsheets of MS Excel with graphs

**(C) VIVA VOCE 10 Marks**

**CLASS X**

**Unitwise Periods/Weightage-Theory and Practicals**

Unit Topic Period Marks  
Theory Practical Theory Practical

**1 IT Basics** 08 05 10 05

**2 IT Tools** 17 30 30 30

MS-Office

\*MS-Access (05) (10) (10) (10)

HTML (12) (20) (20) (20)

**3 IT Application** 00 15 00 25

**Total 25 50 40 60**

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**One paper Class-X Time : 2½ hours Marks : 40**

**THEORY  
UNIT 1: IT BASICS**

**Internet :** World Wide Web, Web Servers, Web sites, Web Pages, Web Browsers, HTML, Web address, Email address, URL, HTTP.

**Services available on Internet:** Information Retrieval, Electronic Mails, Locating sites using search engines and finding people on the net, Chat, Video Conferencing, FTP, Downloading and Uploading files from or to remote site, Newsgroup.

## UNIT 2: IT TOOLS

### MS-Office

#### MS Access:

Basic Concepts and need for a database, Creating a database, Setting the Primary Key, Entering data into a database, Inserting and deleting fields, Inserting and deleting Records, **Data Validation:** Field Size, Default Value Validation Rule, Validation Text, Required, Allow Zero Length.

#### HYPER TEXT MARKUPLANGUAGE

Basic Concept of Web Browsers with emphasis on popular browsers Internet Explorer and Netscape Navigator.

#### HTML Fundamentals:

Introduction to Web Page Designing using HTML, Creating and saving an HTML document, Elements in HTML Container and Empty elements, Designing web pages using the following elements: HTML, HEAD, TITLE, BODY (Attributes: BACKGROUND, BGCOLOR, TEXT, LINK, ALINK, VLINK, LEFTMARGIN, TOPMARGIN), FONT (Attributes: COLOR, SIZE, FACE), BASEFONT (Attributes :COLOR, SIZE, FACE), CENTER, BR (Break), HR (Horizontal Rule, Attributes: SIZE, WIDTH, ALIGH, NOSHADE, COLOR), COMMENTS, ! for comments, H1.. H6 (Heading), P (Paragraph), B(Bold), I (Italics), U (Underline), UL & OL (Unorder List & Ordered List Attributes: TYPE, START, LI (List Item), Insertion of images using the element IMG (Attributes : SRC, WIDTH, HEIGHT, ALT, ALIGN)

Internal and External Linking between Web Pages: Significance of linking, A-Anchor Element (Attributes: NAME HREF, TITLE, ALT)

## UNIT 3: IT APPLICATIONS

Students are suggested to work on the following areas using Access and HTML on topics implementing the tools covered in the course.

### Domains :

#### Database

- \* Personal Data Management System
- \* Employee Payroll
- \* Stock Inventory

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#### Website Designing

- \* Travel and Tourism
- \* Rural India
- \* Environment and Pollution

#### NOTE

- I. Sample documents/presentations on the above are made available on CBSE CD-ROM
- II. Teachers are requested to domonstrate some other popular software for word processing. Presentation, Spreadsheet, Database Management, system which support Hindi and/or some other Indian language (s)  
(Leap Office is an example of Office suite with Indian Language support)
- III. Students are suggested to prepare some document/presentations of their IT Application report

file in Indian Language(s).

## CLASS X

### PRACTICALS

Practical Paper Examination Duration Marks Period in year  
One 4 Hours 60 80

#### (A) HANDS ON EXPERIENCE (2 Exercises)

**30 Marks**

##### Design of a Practical Question Paper

There is no pre-set question paper provided by CBSE for conducting practical examination. This flexibility has been provided to give more freedom to the examiners for the improvement of practical examination, keeping in view the resources and other facilities available in the laboratory of the School. However, detailed instructions on the basis of syllabus, distribution of marks and conduction of practical examination have been provided. The internal examiner and the external examiner together set the question paper according to the prescribed curriculum and distribution of marks.

I. MS ACCESS 8 MARKS

II. HTML 22 MARKS

##### I. MS Access:\*

A problem in MS Access related to some of the tools given below to be tested during the examination:

- \_ Creating and entering data into a database
- \_ Setting the primary key
- \_ Data Validation

##### II. HTML\*

A Problem on Web Page designing (Minimum 2 pages) to be given which will cover some of the following HTML elements:

- \_ <HTML>, <HEAD>, <TITLE>, <BODY>
- \_ Font Styles: <B>, <i>, <U>
- \_ <FONT>-FACE, SIZE
- \_ <CENTER>
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- \_ <P>-ALIGN
- \_ <A>
- \_ <IMG SRC>
- \_ Comments: <!-->

The students are supposed to know the tools and style for designing domain specific webpages from real life applications and the topic mentioned in the syllabus

##### Breakup of marks (HTML)

- \_ Visual Effect :8
- \_ Linking :4
- \_ Coding: 10

\* Printouts of the documents (s) should be attached with the answer sheet

#### (B) IT APPLICATION REPORT FILE 20 Marks

Students are supposed to make a IT Applications Report File Containing Real life assignment/ presentations using MS Access and HTML on topic from the domain:

Must have print outs of the following:

- \_ Documents of MS Access (At least 5)
- \_ HTML source code along with browser view (At least 10)

### **(C) VIVA VOCE 10 Marks**

The questions can be asked from any portion of the syllabus covered during Class IX and Class X.

**NOTE**-Teachers are suggested to give first-hand demonstration covering the aspects such as :  
Connecting to internet, Using popular Search Engines, Web Browsing, Opening E-mail accounts,  
Sending and Receiving E-mails, Downloading files and pictures.

### **Infrastructure**

Following minimum infrastructure requirement is suggested keeping in view of the existing infrastructure

### **Software:**

- \* WIN 96+
- \* MS-Office 95+
- \* Leap Office 2000
- \* Netscape Navigator
- \* Internet Explorer

### **Minimum hardware requirement:**

- \* 486 Multimedia Machine
- \* 16 MB RAM
- \* 4.3 GB HDD

### **Internet connection:**

- \* TCP/IP
- Student Machine ratio : 2:1  
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## **Teacher's Qualification:**

- \* Graduate (B.Sc. Comp)
- \* Graduate with 'A' Level
- \* Graduate with PGDCA (minimum 1 and half years) from a recognized institute/university

### **Magazine/Journal/Video Film**

- \* PC Quest
- \* Chip
- \* PC World
- \* Computer@home
- \* Computer Today
- \* Microsoft training software
- \* C-DAC's ADIT course material