(E) FOUNDATION OF INFORMATION TECHNOLOGY (FIT)
(CODE No. 165) (Session 2017-18)

Learning Outcomes:

- Understanding organization of a computer system and networking.

- Basic understanding of database design.

- Ability to work on office tools such as word processor, spreadsheet and presentation.

- Ability to apply knowledge and practice on office tools to develop IT applications.

- Ability to use Indian languages in developing an IT application.

- Ability to design HTML webpage.

- Appreciation/awareness of societal impacts of information technology in business. Public services, education, health etc.

- Awareness of basic information security issues.

Job Opportunities:

- Upon completion of this optional course on FIT at secondary level, one will be able to assist in IT-enabled office work.

CLASS - X

Theory: 40 Marks   Practical: 60 Marks

Unit	Description	Marks	
		Theory	Practical
Unit I	Basics of Information Technology	10	-
Unit II	Information Processing Tools	25	30
Unit III	Societal Impacts of IT	05	-
Unit IV	IT Applications	-	30
	Total	40	60

CLASS - X (THEORY)

Time : 2½ hours   Marks : 40

Unit I: Basics of Information Technology

Internet: World Wide Web, Web servers, Web Clients, Web sites, Web Pages, Web Browsers, Blogs, News groups, HTML, Web address, E-mail address, URL, HTTP, FTP, downloading and uploading files from remote site;

Services available on Internet: Information Retrieval, Locating sites using search engines and finding people on the net;

Web Services: Chat, email, Video Conferencing, e-Learning, e-Banking, e-Shopping, e-Reservation, e-Governance, e-Groups, Social Networking.

Unit II: Information Processing Tools

Office Tools

Database Management Tool: Basic Concepts and need for a database, Creating a database, DataTypes-Text, Number, Date, Time, Setting the Primary Key, Entering data into a database, Inserting and deleting Fields, Inserting and deleting Records, Field Size, Default Value, Creating Query using Design view.

Information Representation Methods

Hyper Text Markup Language

 Introduction to Web Page Designing using HTML, Creating and saving an HTML document, accessing a web page using a web browser (Google Chrome, Internet Explorer, Mozilla Firefox, Opera, Apple Safari, Net scape Navigator);

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, ALIGN, NOSHADE, COLOR) inserting comments, H1..H6 (Heading), P (Paragraph), B (Bold), I (Italics), U (Underline), UL & OL (Unordered List & Ordered List Attributes: TYPE, START), LI (List Item)

Insertion of images using the element IMG (Attributes: SRC, WIDTH, HEIGHT, ALT, ALIGN), Super Script SUP, Subscript SUB, Creating Table using the element TABLE (BACKGROUND, BGCOLOR, WIDTH, CELLSPACING, CELLPADDING, BORDER), TR, TH, TD, ROWSPAN, COLSPAN, Internal and External Linking between Web Pages: Significance of linking, A - Anchor Element (Attributes: NAME, HREF, TITLE, MAILTO).

XML (Extensible Markup Language)

Introduction to XML, Difference between XML and HTML with respect to the following: Data separation, data sharing, document structure, tags, nesting of elements, attributes, values. XML Elements - Defining own tags in XML, root elements, child elements and their attributes; Comments in XML, White space and new line in XML, well formed XML documents, validating XML documents, XML Parser, Viewing XML documents in a web browser.

Unit III: Societal Impacts of IT

Information Security: Virus, Worms, Trojans and Anti-Virus Software, Spyware, Malware, Spams, Data Backup and recovery tools and methods, Online Backups, Hacker and Cracker with regard to Computer Data and Applications, Social Networking Information security provisions in e-commerce, Benefits of ICT in Education, Healthcare, Governance, Virtual, School, emergence of Knowledge economy, Impact of ICT on Society:

Knowledge based society, Infomania, Digital Unity and Digital Divide.

Unit IV: IT Applications

Students are suggested to work on the following suggestive areas using Database Management Tool and HTML on topics implementing the tools/elements covered in the course.

Domains:

Database Design:

• Personal Data Record File

• School/Class Result Record

• Employee Payroll

• Stock Inventory

• Vehicle Parking Record File

Webpage Design:

• My Home Page

• My School

- My Family

- Personal Blog with Name, Photo, Areas of Interest, School, State, Country

- School Website - Infrastructure, Facilities, Uniform, Motto, School Pictures, Extra Curricular Activities, Subject and Language Options

- Travel and Tourism

- Statistics on India - State wise Area, Population, Literacy (Enrolment in Primary, Middle, Secondary, Senior Secondary), Gender Ratio

- Environment (Save Energy) and Pollution (Global Warming)

CLASS - X (Practical)

Time : 4 hours   **Marks : 60**

(A)   HANDS ON EXPERIENCE   **30 Marks**

1.   Database Design:*

- Creating and entering data into a database

- Setting the primary key

- Inserting meaningful data and organising

- Creating Query with the same design view of the table.

2.   Webpage Designing *

- Adding a title to webpage

- Formatting Text

- Adding Ordered/Unordered Lists

- Writing Text in Paragraphs

- Inserting Image

- Adding content in Tabular Form

- Adding Internal / External links.

    The students are supposed to know the tools and style for designing domain specific web pages from real life applications and the topics mentioned in the syllabus.

3.   XML Assignment*

    Students to be asked to create an XML document on the lines of XML concepts covered in theory syllabus.

*Printouts of the document(s) should be attached with the answer sheet.

(B) **IT APPLICATIONS REPORT FILE** **15 Marks**

Students are supposed to make an IT Application Report File containing real life assignments using a Database Management Tool and HTML

- 5 Database Solutions

- 8 HTML source code along with browser view

- 2 XML Documents Source Code and View

(C) **IT Application project using database and website design in a domain such as School Management, Public Services Computing, Business Computing.**
10 Marks

(D) **VIVA VOCE** **05 Marks**

Viva based on IT applications report file.