

**(F) INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)  
(Code No. 166) (Session 2017-18)**

**Learning Outcomes:**

1. Ability to develop a basic know how of one's computer system.
2. Ability to use Internet and its services.
3. Ability to efficiently work on Image editing tools.
4. Ability to design a website using HTML.
5. Ability to design Online forms using HTML.
6. Ability to apply style sheets using CSS.
7. Ability to recognize security threats and take preventive measures.

**COURSE STRUCTURE  
Class - IX**

**Theory: 40 Marks**

**Practical: 60 Marks**

Unit	Name of Unit	Marks	
		Theory	Practical
Unit I	Basics of Internet	5	-
Unit II	Web services	5	-
Unit III	Introduction to GIMP	10	30
Unit IV	Introduction to HTML	15	30
Unit V	Security Threats and Security Measures	5	-
	<b>Total</b>	<b>40</b>	<b>60</b>

**Class-IX  
Theory Paper**

**Time : 2½ hours**

**Marks : 40**

**Unit I: Basics of Internet**

**Marks: 5**

**World Wide Web** - History of World Wide Web, difference between Internet and www, search engines.

**Web Servers:** What is a server; Server software, Services provided by servers and their types.

**Website:** Definition and its difference from portal, Components of website, Construction of website, how to build a website? elements of website, software used to create website.

**Web pages:** Definition of webpage, what does it contain? static and dynamic areas, what makes a webpage work?, difference between web page and website.

**Web Browser:** Toolbar, SSL, names of various web browsers.

**Blogs-** Definition of blog and bloggers, advantages and disadvantages of blogging.

**URL:** Definition, elements, absolute and relative URL

**Protocols:** Definition, TCP/IP, HTTP, FTP which one to use when and why, applications and examples.

## Unit II: Web Services

Marks: 5

### Concept of web services

**Email:** Definition, protocols used in email services, mail account and address, sending and receiving an email, difference between cc and bcc, spam and junk, Email etiquettes- proper structure and layout, case sensitivity, disclaimer to email, care with abbreviations and emotions, gender sensitivity,

**Chat:** Definition, chat room, commonly used types of chat.

**Video Conferencing :** Definition, areas of application, advantages and disadvantages of video conferencing.

**e-Learning:** Definition, benefits, application areas, e-learning software.

**e-Shopping:** Definition, advantages and dis-advantages, sites available, threats and security concerns.

**e-Reservation:** Definition, benefits, application areas, reservation process, live and nonlive reservation

**e-Group:** Definition, features, benefits.

**Social Networking:** Definition, names of various social networking web sites, merits and demerits, service providers, features available, ethics.

## Unit III: Introduction to GIMP

Marks: 10

**Image editing:** Basics of image editing and their features. Various image editing software including freeware and paid software.

**GIMP-** Introduction, features and uses of GIMP. Downloading GIMP, GIMP compatible platforms. Creation of new file using shortcut or mouse. Default extension of these files and opening of existing file.

Saving a file with keyboard or mouse, .xcf and various file formats supported by GIMP. Basics of GIMP window, Understanding main components of GIMP window, Toolbox.

**Toolbox-** Explain selection tools, text tools, eraser tools, bucket fill tools, foreground and background.

Handling of menus in GIMP with its editing features, Image handling by using various selections and paint tools, resizing (scaling) and cropping, editing images for web, Layers.

**Unit IV: Introduction to HTML****Marks: 15**

Introduction and origin of HTML, History of HTML, Advantages of using HTML, Tools to be used, Tags and attributes, Document structure

Tags and attributes- tags - what are they, tag format, single and multiple tags, empty elements and container elements, Formatting elements.

Structure of HTML document- HTML, HEAD, TITLE, BODY, Attributes (BACKGROUND, BGCOLOR, TEXT, LINK, ALINK, VLINK)

Formatting elements: Font (attributes - colour - <font color> ,</font>), size - <font size>, </font>, face), Centre, <Br>, <HR>, (attributes- size, width, align, no shade, colour) Headings (H1 to H6), Paragraph :<p></p> , attributes : ALIGN , Bold<B>, </B>, Italics<I>, </ I>, underline<U>, </U>.

LISTS- requirement of list in HTML, definition and introduction of LIST<li>, </li>, different types of lists, unordered or bulleted list <ul> ...</ul>, ordered numbered list <ol>...</ol>, definition or glossary list<dl> ...</dl>, <dt>...</dt>(attribute- type, start)

Inserting Image, Audio and Video, Image attributes - align, border, alternate label, width and height)

Audio (attributes - autoplay and controls)

Video (attributes - height, width, auto buffer, controls)

**Unit V: Security Threats and Security Measures****Marks: 5**

**Virus-** definition, types, virus spread, protection, current threats

**Worms-** definition, types, spread, protection, current threats

**Trojans-** definition, Trojan spread, protection

**Spyware-** definition, symptoms, prevention and protection

**Malware-** definition, types, prevention

**Spams-** definition, detection and prevention

**Hackers and Crackers-** definition, tools available, types of hacking, difference between hackers and crackers, prevention and protection.

**Antivirus tools-** free and paid tools, latest tools, there style of working, importance of regular update

**Data Backup and Recovery tools-** Need for backup, technologies and tools available, importance of backup and recovery plan, types of backup.

## Class - IX PRACTICAL WORK

Duration : 4 hours

Marks : 60

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 given below:

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

GIMP 15 Marks

HTML 15 Marks

**(B) IT Application Report File** **15 Marks**

Students are supposed to make a IT Application Report File Containing Real life assignments/ presentations using GIMP and HTML.

- At least 7 Activities related to GIMP
- At least 8 webpages covering the concepts covered.

**(C) Project Work** **10 Marks**

Developing a website on a topic containing all the concepts covered and images edited using GIMP.

**(D) Viva Voice** **5 Marks**

### Suggested Activities

1. Find out and make a list of all the e-commerce websites, Academic websites and social networking sites.
2. Find out all the latest search engines with the features and make a presentation.
3. Students can be asked to make a list of IP addresses of few of their favorite sites using google search engine. Ask them to use those IP addresses to open the sites.
4. Ask students to create a blog for their class and update the blog on daily basis.
5. Make a list of all the sites through which video conferencing is possible without paying any money.
6. Create an e-group of your class and share your view on the current societal issues with your friends.
7. Find out and make a list of various e-shopping websites and make a presentation on the information gathered.

8. Login to your email account and perform the following operations:-
  - a. Compose a mail using all the options of email such as bcc and cc.
  - b. Add email address from your address book.
  - c. Transfer mail from Inbox to spam and vice versa. Create different folders and arrange mails in different folders.
9. Create an account on any popular social networking site for your class and invite all teachers and students of your class to this account. Use this account for academic purpose.
10. Create a blog on any popular blogging site keeping the following points into consideration:
  - Enter the title of the blog as “School Activities at a glance” - Select a suitable template for your blog.
  - The URL of your blog should be your complete name.
  - Publish the post on the monthly basis with the pictures of your school activities of a particular month and then view this post.
  - Sign out from the blog website.
11. Design a digital poster of any e-shopping website.
12. Take your own picture, scan it and change the background colour and clothes colour using paint tools and layouts.
13. Collect three or four images like water image, building image, ship image and a bird image. Make one image showing reflection of the building on the shore and bird flying in a sky in water with the ship.
14. Import an image file of your choice. Change the foreground and the background color, use a text tool to give a heading to your file. Add a layer and place another picture on it. Select the text tool and type your name in blue color. Select a portion of the picture and then change the direction. Save the file.
15. Make a collage on “Heritage of India”
16. Create an advertisement for a magazine on any product of your choice.
17. Try to design the logos of some famous brands.
18. Create a webpage on any of the following:
  - My Home Page
  - My School
  - My Family
  - 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)

Note: Activities mentioned above are only suggestive. Teachers should encourage children to innovate.