Computer Applications
CLASS IX (Code 165)
(2021-22)

Learning Outcomes

1. Ability to familiarise with basics of computers.

2. Ability to navigate the file system.

3. Ability to create and edit documents, spread sheets, and presentations.

4. Ability to perform basic data manipulation using spread sheets and use Indian languages in documents.

5. Ability to send and receive emails, follow email etiquette, and communicate over the internet.

6. Ability to create and upload videos.

7. Ability to safely and correctly use websites, social networks, chat sites, and email.

Distribution of Marks and Periods (TERM I + TERM II)

Unit No.	Unit Name	Marks	Periods	
			Theory	Practical
1.	Basics of Information Technology	20	20	05
2.	Cyber safety	15	10	05
3.	Office Tools	15	20	60
4.	Lab Exercises	50	-	-
	Total	100	50	70

TERM I

Sr No.	Unit Name	Marks
1.	Cyber safety	15
2.	Office Tools - I	10

Unit 2: Cyber-safety

- Safely browsing the web and using social networks: identity protection, proper usage of passwords, privacy, confidentiality of information, cyber stalking, reporting cybercrimes
- Safely accessing websites: viruses and malware , adware

Unit 3: Office tools -1

- Introduction to a word processor: create and save a document.
- Edit and format text: text style (B, I, U), font type, font size, text colour, alignment of text. Format paragraphs with line and/or paragraph spacing. Add headers and footers, numbering pages, grammar and spell check utilities, subscript and superscript, insert symbols, use print preview, and print a document.
- Insert pictures, change the page setting, add bullets and numbering, borders and shading, and insert tables – insert/delete rows and columns, merge and split cells.
- Use auto-format, track changes, review comments, use of drawing tools, shapes and mathematical symbols.
- Presentation tool: understand the concept of slide shows, basic elements of a slide, different types of slide layouts, create and save a presentation, and learn about the different views of a slide set – normal view, slide sorter view and hand-outs.

TERM II

Unit No.	Unit Name	Marks
1.	Basics of Information Technology	20
2.	Office Tools - II	5

Unit 1: Basics of Information Technology

- Computer Systems: characteristics of a computer, components of a computer system – CPU, memory, storage devices and I/O devices
- Memory: primary (RAM and ROM) and secondary memory
- Storage devices: hard disk, CD ROM, DVD, pen/flash drive, memory stick
- I/O devices: keyboard, mouse, monitor, printer, scanner, web camera

- Types of software: system software (operating system, device drivers), application software including mobile applications
- Computer networking: Type of networks: PAN, LAN, MAN, WAN, wired/wireless communication, Wi-Fi, Bluetooth, cloud computers (private/public)
- Multimedia: images, audio, video, animation

Unit 3: Office Tools – II

Presentation tool

- Edit and format a slide: add titles, subtitles, text, background, and watermark, headers and footers, and slide numbers.
- Insert pictures from files, create animations, add sound effects, and rehearse timings.

Spreadsheets

- Spreadsheets: concept of a worksheet and a workbook, create and save a worksheet.
- Working with a spreadsheet: enter numbers, text, date/time, series using auto fill; edit and format a worksheet including changing the colour, size, font, alignment of text; insert and delete cells, rows and columns. Enter a formula using the operators (+,-,*, /), refer to cells, and print a worksheet.
- Use simple statistical functions: SUM (), AVERAGE (), MAX (), MIN (), IF () (without compound statements); embed charts of various types: line, pie, scatter, bar and area in a worksheet.

Suggested Lab Exercises

- Browser settings for a secure connection
- Working with the operating system: Navigation of the file system using a mouse and keyboard.
- Word processing: create a text document; create a letter, report, and greeting card.
- Create a text document with figures in it. It should describe a concept taught in another course.
- Discuss the following in a text document about the basic organisation of a computer: CPU, memory, input/output devices, hard disk.
- Create a text document in an Indian language other than English.
- Create a presentation.
- Create a presentation with animation.

- Include existing images/ pictures in a presentation.
- Animate pictures and text with sound effects in a presentation
- Create a simple spreadsheet and perform the following operations: min, max, sum, and average.
- Create different types of charts using a spreadsheet: line, bar, area and pie.

Breakup of marks for the Practicals:

S.No.	Unit Name	Total Marks	Term-1 Marks	Term-2 Marks
1.	Lab Test (30 marks)			
	Word processing	10	10	-
	Handling spreadsheets	10	-	10
	Creating presentations	10	5	5
2.	Report File + viva (10 marks)			
	Report file: • Term-I : Two documents each with a word processor and presentation tool • Term-II : Two documents each with a spreadsheet and presentation tool	6	3	3
	Viva voce (based on the report file)	4	2	2
3.	Project (that uses most of the concepts that have been learnt)	10	5	5
	Total Marks	50	25	25

<div align="center">

Computer Applications

CLASS X (Code 165)

(2021-22)

</div>

Learning Outcomes

1. Ability to create a simple website
2. Ability to embed images, audio and video in an HTML page
3. Ability to use style sheets to beautify the web pages.
4. Ability to Interface a web site with a web server and record the details of a user's request.
5. Ability to follow basic cyber ethics
6. Ability to familiarize with network concepts.

Distribution of Marks and Periods TERM I + TERM II

Unit No.	Unit Name	Marks	Periods	
			Theory	Practical
1.	Networking	15	17	05
2.	HTML	25	30	50
3.	Cyber ethics	10	08	10
4.	Practicals	50	-	-
	Total	100	55	65

TERM I

Sr No.	Unit Name	Marks
1.	Cyber ethics	10
2	HTML	15

Unit 3: Cyber ethics
- Netiquettes.
- Software licenses and the open source software movement.
- Intellectual property rights, plagiarism and digital property rights.
- Freedom of information and the digital divide.
- E-commerce: Privacy, fraud, secure data transmission.

Unit 2: HTML - I
- Introduction to web page designing using HTML: create and save an HTML document, access a web page using a web browser.
- HTML tags: html, head, title, body, (attributes: text, background, bgcolor, link, vlink, alink), br (break), hr(horizontal rule), inserting comments, h1..h6 (heading), p (paragraph), b (bold), i (italics), u (underline), ul (unordered list), ol (ordered list), and li (list item). Description lists: dl, dt and dd. Attributes of ol (start, type), ul (type).
- Font tags (attributes: face, size, color).
- Insert images: img (attributes: src, width, height, alt), sup (super script), sub (subscript).
- HTML Forms: Textbox, radio buttons, checkbox, password, list, combobox.

TERM II

Unit No.	Unit Name	Marks
1.	Networking	15
2.	HTML	10

Unit 1: Networking
- Internet: World Wide Web, web servers, web clients, web sites, web pages, web browsers, blogs, news groups, HTML, web address, e-mail address, downloading and uploading files from a remote site. Internet protocols: TCP/IP, SMTP, POP3, HTTP, HTTPS. Remote login and file transfer protocols: SSH, SFTP, FTP, SCP, TELNET, SMTP, TCP/IP.
- Services available on the internet: information retrieval, locating sites using search engines and finding people on the net;
- Web services: chat, email, video conferencing, e-Learning, e-Banking, eShopping, e-Reservation, e-Governance, e-Groups, social networking.

- Mobile technologies: SMS, MMS, 3G, 4G.

Unit 2: HTML - II
- Embed audio and video in a HTML page.
- Create a table using the tags: table, tr, th, td, rowspan, colspan
- Links: significance of linking, anchor element (attributes: href, mailto), targets.
- Cascading style sheets: colour, background-colour, border-style, margin, height, width, outline, font (family, style, size), align, float

Suggested Lab Exercises

- Create static web pages.
- Use style sheets to enforce a format in an HTML page (CSS).
- Embed pictures, audio and videos in an HTML page.
- Add tables and frames in an HTML page.
- Decorate web pages using graphical elements.
- Create a website using several webpages. Students may use any open source or proprietary tool.
- Work with HTML forms: text box, radio buttons, checkbox, password, list, combo box.
- Write a blog using HTML pages discussing viruses, malware, spam and antiviruses
- Create a web page discussing plagiarism. List some reported cases of plagiarism and the consequent punishment meted out. Explain the nature of the punishment in different countries as per their IP laws.

Breakup of marks for the practicals:

S.No.	Unit Name	Total Marks	Term-1 Marks	Term-2 Marks
	Lab Test (20 marks)			
1	HTML (design one web page based on a diagram)	20	10	10
2	**Report File + viva (20 marks)**			
	Report file: At least 10 HTML pages. (Term-1 : At Least 5 HTML Pages, Term-2 : At least 5 HTML Pages)	14	7	7
	Viva voce (based on the report file)	6	3	3
3	Project (that uses most of the concepts that have been learnt)	10	5	5
	Total Marks	50	25	25