Electronic Publishing

'M' Scheme Syllabus

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E-PUBLISHING

PREFACE

This book of E-Publishing covers all the topics in a clear and organized format for the Third year Diploma in Printing Technology students as prescribed by the Directorate of Technical Education, Chennai, Tamilnadu. It is confidently believed that this book furnishes the students the necessary study material. The topics covered were neatly illustrated for better understanding of the students.

The book is prepared step-by-step lessons in large, eye pleasing calligraphy make it suitable for both direct one-to-one tutoring and regular classroom use. The highlight of this book is its simple English with clear and easy explanation of each topic.

All the topics are explained with supporting diagram for diploma level students to understand effectively.

This book majorly deals with Introduction about E-publishing, PDF Production, Copy Editing and Proof Reading, HTML, XML and Web to Print etc.

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Unit I – Electronic Publishing

1.1 Introduction to e publishing:

- Electronic publishing or ePublishing includes the digital publication of e-books and electronic articles, and the development of digital libraries and catalogues.

- Electronic publishing has become common in scientific publishing where it has been argued that peer-reviewed scientific journals are in the process of being replaced by electronic publishing.

- E-publishing is short for electronic publishing, referring to a type of publishing that does not include printed books.

- E-publishing instead takes the format of works published online, on a compact disk, emailed, or provided in a file format compatible with handheld electronic readers.

- E-publishing is an alternate form of publication especially attractive to new writers.

- There are advantages and disadvantages to e-publishing over traditional printed books.

ELECTRONIC PUBLISHING Also known as

- DESK TOP PUBLISHING

- ONLINE PUBLISHING

- WEB PUBLISHING

Definition

- Use of electronic (digital) equipment to create and reproduce text and graphic images of all kinds and combinations.

- Use of digital media (non-print) as the final communication format.

- Eg. CD CD-ROM documents, Acrobat documents, Web pages, Online publications etc.

HISTORY

- Term introduced by William Dijkhuis in 1977.

- The very first e-publication came in 1980s in the form of plain text emails. They were sent to the subscriber via a mailing list.

- 1st e-journal journal- ELECTRONIC LETTERS ONLINE by IEE(1994 1994-95) distributed via OCLC.
- 1985-1995 referred to as a period of digital revolution. i.e. a shift from analog to digital treatment of information.
  - CD CD-ROMS
  - PDF
  - E-JOURNALS

What is e publishing?

- E Publishing involves storage of information in electronic or digital form, instead of paper.

Why e publish?

- E publishing gives authors the opportunity to reach a global audience in a cost effective manner. Also, E publishing is the happening phenomenon in the present day knowledge economy.

Epublishing Overview

- Electronic publishing, or epublishing, uses new technology to deliver books and other content to readers.
- Because the technology allows publishers to get information to readers quickly and efficiently, it is causing major changes to the publishing industry as we know it.
- It will also impact the way we read, offering new hardware and software devices.
- We are only beginning to see the ramifications of epublishing.
- Epublishing is a very broad term that includes a variety of different publishing models, including electronic books (ebooks), print-on-demand (POD), email publishing, wireless publishing, electronic ink and web publishing.
- More types of epublishing are sure to be developed in the near future.

How does E-publishing work?

The process is quite simple. Let us describe the process in four stages.

Stage 1: Manuscript Review

- The author sends the manuscript with payment for review. Read more about [manuscript evaluation options and charges](#).
- The manuscript is reviewed by the editorial team.
- The feedback and comments are sent to the author within a fortnight.
- Based on the feedback, the author finalizes the manuscript.

Stage 2: Agreement, selecting services and publishing options

- The author sends the revised manuscript.
- The publishing agreement is sent to the author for his/her approval and signature.
- A copy of the signed agreement is returned to the author.

Stage 3: Production

- The manuscript is sent to the design team.
- The final version is sent to the author for approval.

Stage 4: EBook goes live on

E-publishing Workflow:
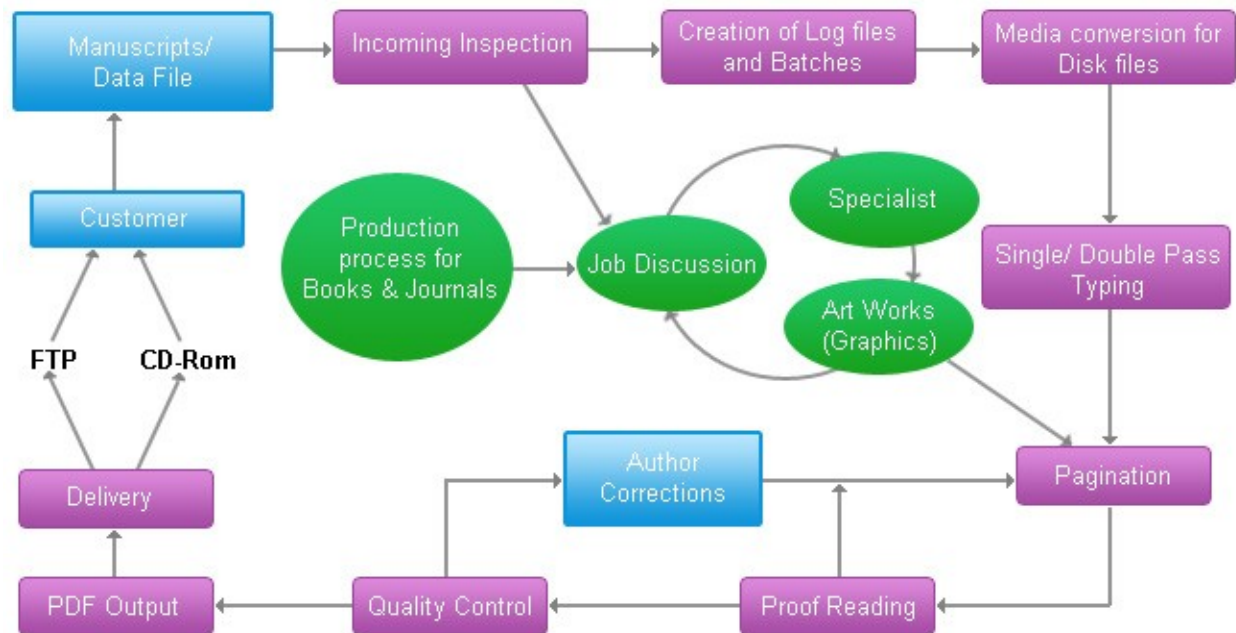
Advantages

- Accessible to all users regardless of geographic location.
- More acceptance of E-publishing within the scientific community.
- Possibility to get print out, to store in file or download from Internet of the long texts like an article.
- Possibility instant communication between editor/author.
- Possibility of to read whenever or how much you want.
- Possibility of cheaper publishing or cost effective publishing.
- Possibility of easier production and distribution of large volume study materials.
- Possibility of easier and quicker to reach huge masses.

Disadvantages

- User Friendliness
- Cost dimension of Internet and to get computer.
- Time problem during using and waiting for pages.
- Some time, technical difficulties to reach electronic materials.
- Misconduct and security issues, piracy, and plagiarism.
- Copy the entire document, or change the actual article, image or data.
- Destroying copyright
- Lack of widespread acceptance within the scientific community.
- Decreasing of access speed for the reason of huge volume.

1.2 Basic Principles of e-book:

- Short for Electronic Book, an eBook or e-book is a book published in an electronic format that allow instant access to a book by being able to download the book over the Internet.

- An eBook can be published in different file formats, for example, plain text, PDF, Rich Text Format, as image files, and others.

- The electronic counterpart of a printed book, which can be viewed on a desktop computer, laptop, smartphone or e-book reader.

- When traveling, a large number of e-books can be stored in portable units, dramatically eliminating weight and volume compared to paper.

- Electronic bookmarks make referencing easier, and e-book readers may allow the user to annotate pages.

- ***An electronic book (or e-book) is a book publication made available in digital form, consisting of text, images, or both, readable on the flat-panel display of computers or other electronic devices.***

E-Book Formats:

- AZW: Amazon's proprietary format

- BBEB: Sony's proprietary format; stands for Broadband eBook.

- DJVU: A format by Lizardtech; widely used for scientific publications.

- DOC: Microsoft word's format.

- EPUB: A popular open ebook standard defined by the International Digital Publishing Forum (IDPF).

- FB2: Stands for Fiction Book version 2; based on XML.

- HTML: Stands for HyperText Markup Language; the language used by all internet websites that any browser can read.

- LIT: The native format used for Microsoft Reader.

- LRF: Sony's proprietary format. See BBEB.

- MOBI: A widely used, very popular format by Mobipocket;

- PDB: Stands for palm database. This format is widely used for cellphones (BlackBerry, iPhone), and Palm devices.

- PDF: Stands for Portable Document Format. The most widely used file type. Created by Adobe.

- PRC: Stands for Palm Resource Compiler; aka MOBI.

- RTF: Stands for Rich Texture Format; one of the most widely interchangeable ebook formats and supported by most ebook readers and word processors.

- TXT: Plain text files don't retain special characters or formatting; basic notepad style.

- WOLF: The proprietary format for Hanlin ebook readers, aka BeBook.

What is E-book reader:

- An e-reader, also called an e-book reader or e-book device, is a mobile electronic device that is designed primarily for the purpose of reading digital e-books and periodicals.

- Any device that can display text on a screen may act as an e-reader, but specialized e-reader devices may optimize portability, readability (especially in sunlight), and battery life for this purpose.

- Their main advantage over printed books is portability: an e-reader is capable of holding thousands of books while weighing less than one

List of Various manufactures of E-book:

eReader	Native e-book formats
Amazon Kindle and Fire tablets	AZW, AZW3, KF8, non-DRM MOBI, PDF, PRC, TXT
Barnes & Noble Nook and Nook Tablet	EPUB, PDF
Apple iPad	EPUB, IBA (Multitouch books made via iBooks Author), PDF
Sony Reader	EPUB, PDF, TXT, RTF, DOC, BBeB
Kobo eReader and Kobo Arc	EPUB, PDF, TXT, RTF, HTML, CBR (comic), CBZ (comic)
PocketBook Reader and PocketBook Touch	EPUB DRM, EPUB, PDF DRM, PDF, FB2, FB2.ZIP, TXT, DJVU, HTM, HTML, DOC, DOCX, RTF, CHM, TCR, PRC (MOBI)

Advantages of E-Books

- No shipping costs, delivered via email

- Print off as many copies as you like in your own time

- A lot of e-Books come with resale rights

- The price is very cheap

- Information is available in e-Books that you can not find in regular books

- They are searchable

- Convenient

- Easy to find

- Environment - eBooks are better for the environment

Disadvantages of E-Books

- Some people don`t like reading books on their computer screen

- If choosing to print an e-Book you may use a lot of printer paper!

- .exe e-Books wont open on MAC`s.

Applications of E-book:

- Publishers

- Bookstores

- Distributors

- Newspapers and Magazines

- Universities

- Libraries

- E-Commerce Sites

New media:

- Blog

- Collaborative software

- Digital publication app

- File sharing

- Mobile apps

- Podcast

- Enhanced publication

Business models

- Digital distribution

- Online advertising

- Open access (publishing)

- Pay-per-view

- Print on demand

- Subscriptions

- Self-publishing

- Non-subsidy publishing

1.3 Steps involved for creation of E-book:

E-Book is short for **Electronic Book**- basically a book delivered in electronic (on a computer) format. Different people talking about E-Books in many situations- for example Electronic Books that are designed to be read on a handled computer. When we talk about

our E-Book on this web site, we are primarily referring to E-Books designed to run on PC's which run the Microsoft windows operating system.

In some cases, you may be to create E-Books for other platforms, such as the Apple Macintosh. Additionally, there are now hand held readers (either specialist e-book reading devices, or mobile computers like the Palm Pilot) that allow may allow certain kinds of E-books to be read on the move. We do not currently cover these types of E-Books on this web site.

1. Editing
2. Cover page
3. E-book design
4. ISBN registration
5. Copy right certification
6. Marketing

1)   Editing:

If you're going to create an E-Book, at some point you will need an E-Book Compiler. An E-Book compiler is a program that takes the source files (the content of your E-Book) and complies them into an easy-to-distribute format.
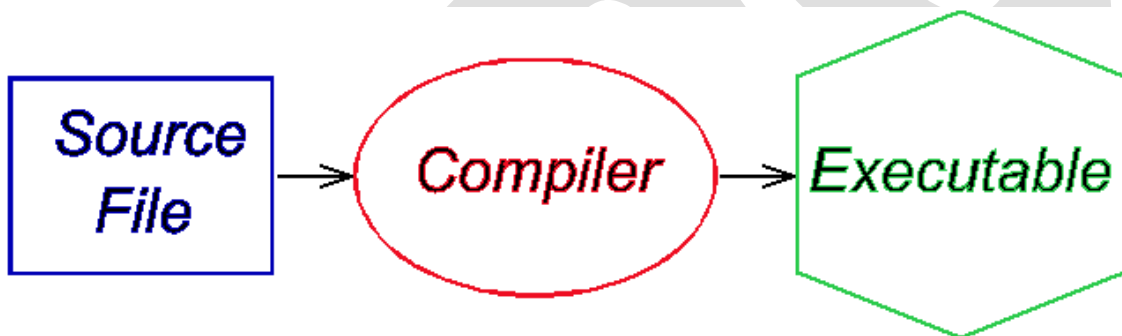
Complier:

A compiler is a computer program (or a set of programs) that transforms source code written in a programming language (the source language) into another computer language (the target language), with the latter often having a binary form known as object code. The most common reason for converting source code is to create an executable program.
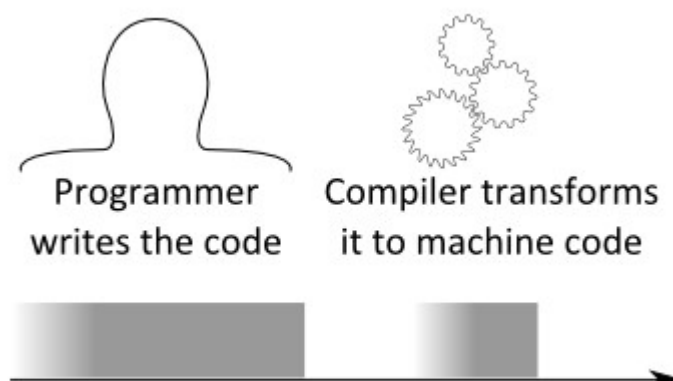
Different Types of e book compilers:

There are three main kinds of compilers. But they are classified into three categories they are:

a) HTML compilers

b) PDF compilers

c) Other compilers

a) HTML compilers

HTML Compiler is a program that allows you to put an entire HTML application into a standalone Windows application.

HTML Compiler is a program for Microsoft Windows(tm) that allows you to put an entire HTML application (including HTML, CSS, JavaScript, Images, etc.) into an standalone Windows application which can be executed like any other Windows application.

HTML Compiler allows you to customize the resulted executable file by changing their icon and establishing several other options. For example, you can allow or disallow the possibility of print the HTML pages, allow or disallow the text selection and many, many more. Also you can specify certain file types to be extracted or automatically executed.

Main program features

- HTML Compiler produce standalone executables

- Your site files are never extracted to the PC

- Your HTML code can to interact with your application

- HTML Compiler is multilanguage and support themes

- Your executables also support dozens of themes too

- Password protected applications if you wanted

- External JavaScript to interact with your publication

- Your publications are completely royalty free

- Allows compress, protect and sign applications

b) PDF compilers

PDF is a file format created by adobe that can be used for E-Books. To read a PDF file, a user will need to have installed the Adobe Acrobat reader.
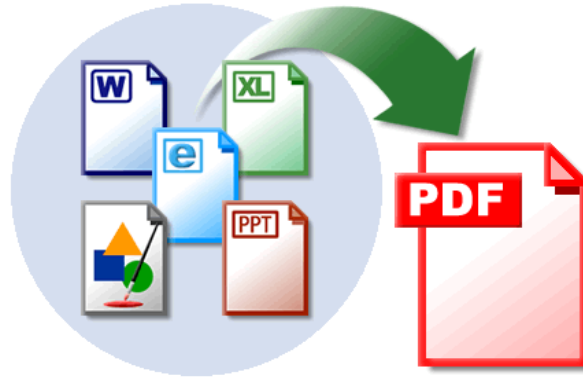
A PDF compiler may be a good choice if any of the following apply:

- The user generally expects his E-book to be printed.

- The user wants the E-Book to always have an exact appearance as specified by you.

- The users do not need the "special" used on web pages on that some HTML e-book compliers support.

- The users do not have experience designing web pages.

- The users do not want to reuse the same HTML- format information on the E-Book on the web site, or vice-versa.

- The users not need a good search facility inside the e-book.

- The user to convert a lot of paper or world processor files to E-Books.

- The user has sufficient funds to afford whatever PDF tools that you need.

- The user want to reach an audience who can't read HTML compiled E-books –for example Macintosh users.

C) Other compilers:

There are also E-Book compilers that convert other file for-mats such as **plain text, or RTF, or proprietary formats into E-Books.**

The pricing and features in these compilers may vary widely, if using a proprietary file format to write your text in, might be a good idea to check, early on, that you will be able recover your information from the system.

2. Cover Page design:

Here some important point to ensure that the e-book cover design looks professional and boosts the sales.

1. DO avoid white backgrounds or very light backgrounds, unless you're going to add images and colorful text.

2. DO try to keep it simple. Simplistic covers are often the most sophisticated.

3. DO use fonts that are easy to read. If you can't read your book title from a few feet away, it's probably too small or too complex.

4. DON'T use too many different fonts & colors .

5. DON'T stretch the font or make it very large on the back of your book to fill space:

6. DO add texture, but

7. DON'T place text over a textures if it may be difficult to read. Try adding a semi-transparent bar of color to help your text pop:

8. DO print one copy of your book before printing a large run-this way, you'll know that you're happy with the way the colors, images, and text appear when printed.

9. DO get opinions from others and ask for help if you need it!

10. DO look at lots of book covers beforehand to get inspired.

3. E-book design:

- Once you know what kind of format you want for your e-book, you're now ready to begin its production.

- There are two ways to do this: creating it with a software you can use independently or without connecting to the Internet, or creating it with a web-based app.

- Web-based e-book apps tend to have simpler, user-friendly features as opposed to offline software which are mostly used for designing graphically intense content.

- If you're looking to create a quick e-book without breaking the bank, there are lots of free online software available.

- Once the written text that is to be published is ready, it is necessary to convert the text into a piece of software for digital publishing.

- Web-based apps and WordPress plugins to create an eBook

    1. Pressbooks
    2. Beacon (WordPress plugin)
    3. Google Docs
    4. Papyrus

5. [Zinepal](#)

6. [PublishXpress](#)

- Desktop tools to write/create an eBook

    1. Adobe Indesign,

    2. Open Office

    3. Adobe Acrobat

    4. iBooks Author

    5. Microsoft Word

    6. Kindle Gen

4. ISBN Registration:

- ISBN is the acronym for International Standard Book Number.

- The ISBN (International Standard Book Number) is a unique number assigned to a book title by its publisher for tracking and ordering purposes.

- This 10 or 13-digit number identifies a specific book, an edition of a book, or a book-like product.

- Since 1970 each published book has a unique ISBN. In 2007, assigned ISBNs changed from 10 digits to 13.

- ISBNs are calculated using a specific mathematical formula and include a check digit to validate the number.

Each ISBN consists of 5 elements with each section being separated by spaces or hyphens. Three of the five elements may be of varying length:

- **Prefix element** – currently this can only be either 978 or 979. It is always 3 digits in length

- **Registration group element** – this identifies the particular country, geographical region, or language area participating in the ISBN system. This element may be between 1 and 5 digits in length

- **Registrant element** - this identifies the particular publisher or imprint. This may be up to 7 digits in length

- **Publication element** – this identifies the particular edition and format of a specific title. This may be up to 6 digits in length

- **Check digit** – this is always the final single digit that mathematically validates the rest of the number. It is calculated using a Modulus 10 system with alternate weights of 1 and 3.

What is the difference between an ISBN and an ISBN Barcode?

- As ISBN is just a Number and ISBN Barcode is a Barcode.

- ISBN Barcode is a unique commercial book identifier barcode. It is encoded in an EAN-13 format barcode with a Price Supplemental barcode.

1. ISBN Code
2. Human Readable Text (optional)
3. Pricing Supplemental Code

- This 2-part barcode is required by traditional book sellers such as Barnes & Nobles, Books-a-Million, and others.

What is an ISBN used for?

An ISBN is essentially a product identifier used by publishers, booksellers, libraries, internet retailers and other supply chain participants for ordering, listing, sales records and stock control purposes.

The ISBN identifies the registrant as well as the specific title, edition and format.

5. Copyright certification:

To protect the copy rights of the author of a book has always been a problematic issue. A clear example of this is the regular use of photocopiers.

Copyright Registration is necessary to protect the creators, creative work such as music, books, manuscripts, software's, films, fashion designs, website etc from being copied and used for commercial purposes without the creators permission thus causing tremendous loss to the creator.

Copyrights operates against unauthorized copying, the taking of another's creation, without paying for it.
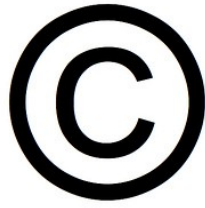
Digital rights management (DRM)

- Digital rights management (DRM) is a systematic approach to copyright protection for digital media.

- The purpose of DRM is to prevent unauthorized redistribution of digital media and restrict the ways consumers can copy content they've purchased.

- Digital Rights Management is the practice of imposing technological restrictions that control what users can do with digital media.

- When a program is designed to prevent you from copying or sharing a song, reading an ebook on another device, or playing a single-player game without an Internet connection, you are being restricted by DRM.

- Although digital content is protected by copyright laws, policing the Web and catching law-breakers is very difficult.

- DRM technology focuses on making it impossible to steal content in the first place, a more efficient approach to the problem than the hit-and-miss strategies aimed at apprehending online poachers after the fact.

6. Marketing

- Marketing is based on thinking about the business in terms of customer needs and their satisfaction.

Defining Internet Marketing

- Also called online marketing, it is the process of promoting a brand, products or services over the Internet.

- Its broad scope includes email marketing, electronic customer relationship management and any promotional activities that are done via wireless media.

- It also combines the technical and creative aspects of the World Wide Web such as advertising, designing, development and sales.

- Moreover, Internet Marketing also deals with creating and placing ads throughout the various stages of customer engagement cycle.

Specialized Areas of Internet Marketing

Internet marketing can also be broken down into more specialized areas such as Web marketing, email marketing and social media marketing:

1) Web marketing includes e-commerce Web sites, affiliate marketing Web sites, promotional or informative Web sites, online advertising on search engines, and organic search engine results via search engine optimization (SEO).

2) Email marketing involves both advertising and promotional marketing efforts via e-mail messages to current and prospective customers.

3) Social media marketing involves both advertising and marketing (including viral marketing) efforts via social networking sites like Facebook, Twitter, YouTube and Digg.

1.4 Marketing Strategies

In order to be successful with marketing there are many strategies that can work. Here are some ideas to get you started:

1. Ezines (Electronic Magazine)

- The term ezine is short for "electronic magazine." "E-zine" and "e-Zine" are spelling variations. A similar term is "ejournal."

- There are several usages of the term ezine. The term is similar to zine, which is derived from magazine and is used to describe "small press" or personally distributed magazines or newsletters.

  - Readers subscribe to ezines out of interest or when they require guidance about something very specific.

  - One difference between ezines and magazines is that ezines are usually free of charge.

  - You can publish an ezine on almost anything; ezine topics range from interior designing, spirituality, education to sports.

2. Joint Ventures

• A joint venture (JV) is a business arrangement in which two   or more parties agree to pool their resources for the purpose   of accomplishing a specific task.

• This task can be a new project or any other business activity. In a joint venture (JV), each of the participants is responsible for profits, losses and costs associated with it.

• However, the venture is its own entity, separate and apart from the participants' other business interests.

3. Pay-Per-Click Search Engines

Pay-per-click marketing is a way of using search engine advertising to generate clicks to your website, rather than "earning" those clicks organically.

You know those sponsored ads you often see at the top of Google's search results page, marked with a yellow label? That's pay-per-click advertising .

Pay per click (PPC) (also called cost per click) is an internet advertising model used to direct traffic to websites, in which advertisers pay the publisher (typically a website owner) when the ad is clicked. It is defined simply as "the amount spent to get an advertisement clicked."

With search engines, advertisers typically bid on keyword phrases relevant to their target market. Content sites commonly charge a fixed price per click rather than use a bidding system. PPC "display" advertisements, also known as "banner" ads, are shown on web sites or search engine results with related content that have agreed to show ads.

4. Search Engines Optimization (SEO)

• SEO is a marketing discipline focused on growing visibility in organic (non-paid) search engine results.

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- SEO encompasses both the technical and creative elements required to improve rankings, drive traffic, and increase awareness in search engines.

- A successful search engine optimization campaign will have, as part of the improvements, carefully select, relevant, keywords which the on-page optimization will be designed to make prominent for search engine algorithms.

5. Press Releases and News

- Another way to promote your site is to get your business/name/product in the news.

- A press release, news release, media release, press statement or video release is a written or recorded communication directed at members of the news media for the purpose of announcing something ostensibly newsworthy.

- Typically, they are mailed, faxed, or e-mailed to assignment editors at newspapers, magazines, radio stations, television stations, or television networks.

<u>**Unit - I**</u>

<u>**2 Mark Questions**</u>

1) What is e publishing?

Electronic Publishing involves storage of information in electronic or digital form, instead of paper.

2) Why e publish?

E-publishing gives authors the opportunity to reach a global audience in a cost effective manner.

3) Mention any two disadvantages of e-publishing?

- Piracy. Anything digital can be pirated.

- File formats are not interchangeable between software applications.

- Digital Rights Management, a way of protecting your work is not always offered or advised.

4) What is E-book?

An e-book is the electronic version of a book covering its full contents like text, tables, diagrams, illustrations, etc.

5) Write any two e-book formats.

1. Epub
2. AZW - Amazon Kindle e-reader
3. PDB - Palm Digital Media
4. PDF - Portable Document File
5. ODF - OpenDocument Format
6. BBeB - Broadband eBook

6) What is E-book reader?

A shortened form of electronic book reader that make it possible for books in digital form to be viewed and read by users.

7) Mention two manufactures of E-book readers.

- Amazon Kindle

- Barnes and Noble's NOOK

- Apple iPad

- Sony Reader

8) Write any two applications of E-book.

- Publishers

- Bookstores

- Libraries

- E-Commerce Sites

9) What are the types of e book compilers?

d) HTML compilers
e) PDF compilers

f)   Other compilers

10) Mention any two programs to publish e-books?

- Microsoft Reader, Adobe Indesign, e-Book Generator. Adobe Acrobat

11) Mention any two different platform for e-publishing?

Website, Compact Disk, DVD, e-mail, electronic readers

12) What are the special features available in E-book Reader?

Highlighter, Bookmark, Annotations, Animation, Audio and Video player and internet.

13) Expand EAN.

EAN - European Article Number

3 Marks Questions

1.   What you meant by e publishing?

- Electronic publishing or ePublishing includes the digital publication of e-books and electronic articles, and the development of digital libraries and catalogues.

- Electronic publishing has become common in scientific publishing where it has been argued that peer-reviewed scientific journals are in the process of being replaced by electronic publishing.

2.   What are the advantages of e publishing?

- Negligible investment.

- Fast publishing time.

- Manuscript can be any length (in pages) or size (in bytes).

- Able to be edited quickly and at no cost.

3.   Explain the difference between conventional publishing and e publishing.

1) it does not include using an offset printing press to print the final product and

2) it avoids the distribution of a physical product (e.g., paper books, paper magazines, or paper newspapers).

3) Because the content is electronic, it may be distributed over the Internet and through electronic bookstores, and users can read the material on a range of electronic and digital devices, including desktop computers, laptops, tablet computers, smartphones or e-reader tablets.

4.   Explain basic principle of e book?

- Short for Electronic Book, an eBook or e-book is a book published in an electronic format that allow instant access to a book by being able to download the book over the Internet.

- An eBook can be published in different file formats, for example, plain text, PDF, Rich Text Format, as image files, and others.

- The electronic counterpart of a printed book, which can be viewed on a desktop computer, laptop, smartphone or e-book reader.

5.   What are the uses of E-book reader?

A shortened form of electronic book reader, e-book readers are handheld computer devices that make it possible for books in digital form to be viewed and read by users.

6.   Explain applications of E-book.

- Publishers

- Bookstores

- Distributors

- Newspapers and Magazines

- Universities

- Libraries

- E-Commerce Sites

8) Define ISBN Registration.

- ISBN is the acronym for International Standard Book Number.

- The ISBN (International Standard Book Number) is a unique number assigned to a book title by its publisher for tracking and ordering purposes.

- This 10 or 13-digit number identifies a specific book, an edition of a book, or a book-like product.

9) What is mean by DRM?

- Digital rights management (DRM) is a systematic approach to copyright protection for digital media.

- The purpose of DRM is to prevent unauthorized redistribution of digital media and restrict the ways consumers can copy content they've purchased.

10) What is meant by Copyright certification?

- To protect the copy rights of the author of a book has always been a problematic issue. A clear example of this is the regular use of photocopiers.

- Copyrights operates against unauthorized copying, the taking of another's creation, without paying for it.

11) Define Pay per click search engines.

- Pay-per-click marketing is a way of using search engine advertising to generate clicks to your website, rather than "earning" those clicks organically.

- With search engines, advertisers typically bid on keyword phrases relevant to their target market.

12) Write any two important factors for Cover design?

- Easy to read font and text size.

- Use bold colors but don't uses rainbow colors

- Use images and graphics

13) What are the stages involved in E-publishing?

Manuscript Review, Agreement & Publishing options, Production and Ebook goes on live.

10 Marks Questions

1. Explain the basic principles involved in e-publishing and write about Advantages of e-publishing.

2. Explain about the E-books and write about applications of e-book reader.

3. Describe about steps involved in creation of e-book.

4. Explain in detail about ISBN registration with diagram.

5. Discuss about types of book compliers for ebook creation.

6. Discuss the marketing strategies for ebooks.

Unit – II PDF Production, Copy Editing and Proof Reading

2.1 PDF AN INTRODUCTION

PDF stands for *"Portable Document Format."* PDF is a multi-platform file format developed by Adobe Systems.

A PDF file captures document text, fonts, images, and even formatting of documents from a variety of applications like e-mail a PDF document and it will look the same way on his screen as it looks on others, even if have Mac and PC.

Since PDFs contain color-accurate information, they should also print the same way they look on your screen.

To view a PDF file, you need Adobe Reader, a free application program distributed by Adobe Systems. Adobe also makes an Acrobat Plug-in for Web browsers that enable PDF files to be viewed inside a browser window.

PDF (Portable Document Format) is a file format that has captured all the elements of a printed document as an electronic image that you can view, navigate, print, or forward to someone else.

PDF files are created using Adobe Acrobat, Acrobat Capture, or similar products. To view and use the files, you need the free Acrobat Reader, which you can easily download. Once you've downloaded the Reader, it will start automatically whenever you want to look at a PDF file.

Some situations in which PDF files are desirable include:

- Graphic design development in which team members are working at a distance and need to explore design ideas online

- Help desk people who need to see the printed book that users are looking at

- The online distribution of any printed document in which you want to preserve its printed appearance

- Cross-platform use

- Preservation of layout and fonts for file sharing

- Document security (customized settings depending on the PDF creation software)

PDF file format created by *Adobe Systems, Inc*. uses the PostScript printer description language and is highly portable across computer platforms. PDF documents are created with Adobe Acrobat or other programs and can be viewed with Adobe Acrobat Reader and other PDF reader programs. PDF filed have become increasingly important as an output option for desktop publishing and word processing files.

Application of PDF:

- Share files with others who don't have the same software.

- Share files with others use a different platform. (Mac, Windows, Linux, etc.).

- Share files that can be protected from unauthorized view.

- Share files that can be protected from unauthorized viewing, printing, copying, or editing.

- Publish electronic documents, ebooks, etc.

- Print files to many different types of printers, and all look essentially the same.

- Create files with annotations, hyperlinks, and book marks that can be shared via email and the web.

- Create interactive forms that can be shared via email and the web.

- Create files that are more efficient than postscript or native file formats typically used in commercial printing.

Adobe PDF for professional publishing:

AS the professional printing industry evolves from a traditional to a digital workflow, it faces a number of issues, including predictability, reliability, and consistency of workflow. Adobe Acrobat, Adobe PDF, and Adobe postscript 3 printing technology address all these issues.

With the introduction of Adobe postscript 3, Adobe is making the concept of a digital, composite prepress workflow a reality. Composite files are compact, efficient, and easier to use than separated files, and can be delivered and printed on a broader range of devices. Adobe Postscript 3 provides the enabling technology help users in press environments take advantage of composite files and move to a fully digital work flow.

Advantages of Adobe Acrobat and Adobe PDF in a Graphic arts and Printing Industry

- Streamline the printing process with faster and cleaner communication, fewer delays, lower production costs, and increases reliability.

- Speed the review and approval of creative proofs.

- Show on-screen how a document's fonts, graphics, and layout will print.

- Work as a pre-flight mechanism to ensure the validity of a post script file.

- Generate essentially error-free Postscript language files.

- Deliver final output to printers.

- Archive final output to printers.

- Provide an alternative to EPS for placing artwork in an-other document.

- Capture existing paper documents and archive them electronically.

2.2 PDF PRODUCTION

PDF production using Indesign:

InDesign allows you to create newsletters, brochures and flyers, but sharing those creations can be a problem. Most business users don't have Adobe's InDesign software installed on their computers and, therefore, won't be able to read the documents. Exporting an InDesign document as a PDF, making the file view on any computer with a PDF reader, is the best solution for this issue. It's easy to make a PDF from InDesign without using a separate PDF creation program.

Steps

1. Launch Adobe InDesign.
2. Open the document you want to export to PDF format.
3. Click the File menu and choose the Export PDF option.

4. Adobe InDesign will open an Export PDF window, allowing you to customize several exporting options.

5. Choose the appropriate file size in the Export PDF Preset dropdown selection box.

    ▪ The smallest file size will be easiest to email or upload to the web or a network location.

    ▪ The Press Quality setting makes the image quality the highest priority and is for documents that will be going to a professional printer. This setting is not compatible with all versions of Adobe Reader or other PDF reading programs.

    ▪ The High Quality Print setting will create a PDF file that is compatible with all versions of Adobe Reader, but will result in a much larger file size.
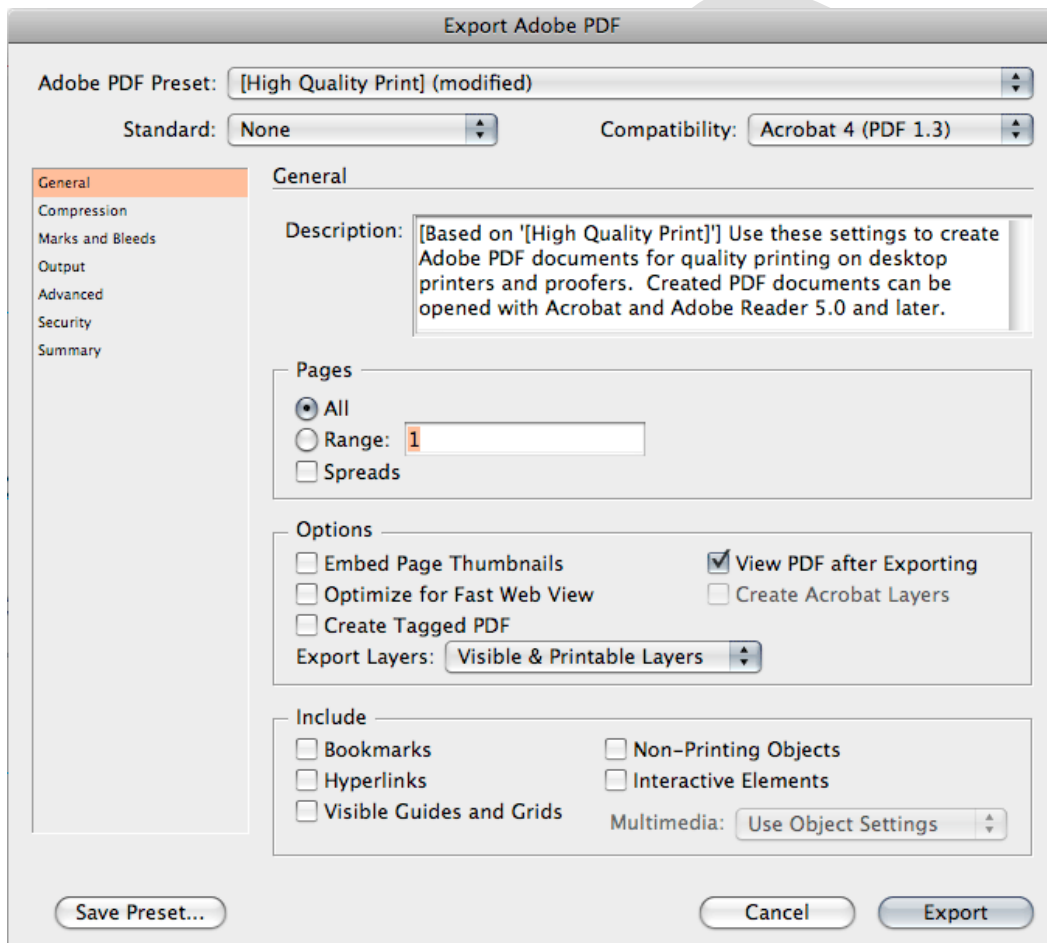

6. Accept the "All" preset under the Pages section or select only those pages to be exported.

    • All pages selected will export into one multi-page PDF file.

    • Repeat the printing process to make a separate export PDF file for each page and select a different single page each time.

7. Mark other desired options such as 'View PDF after Exporting,' 'Include Hyperlinks' and 'Optimize for Fast Web View.

8. Go to the Summary section from the left sidebar of the Export PDF window and review your selected options.

9. Make any necessary changes and then return to the Summary.

10. Export by clicking the 'Export PDF' button at the bottom of the window.

11. Browse to the save location and open your exported PDF.

Predefined PDF prestes:

A PDF preset is a group of settings that affect the process of creating a PDF. These settings are designed to balance file size with quality, depending on how the PDF will be used. Most predefined presets are shared across Adobe Creative Suite components, including InDesign, Illustrator, Photoshop, and Acrobat. You can also create and share custom presets for your unique output requirements.

A PDF preset is a predefined set of PDF options that you can use for creating. Adobe PDF files. The settings in these presets are designs to balance file size with quality, depending on how the Adobe PDF file is to be used. You can also create new presets with custom settings.
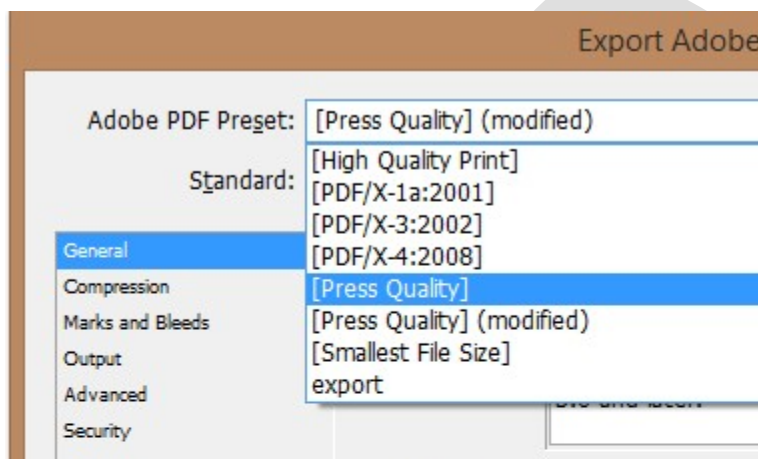
Check your In Design Adobe PDF settings periodically using the summary area of the Export PDF dialog box. In Design uses the last set of adobe PDF settings defined or selected. The settings do not automatically revert to the default settings.

Creating PDF files using QuarkXpress:

Here we go to study about the actual creation of files PDF Filter the new PDF Filter include in QuarkXpress5. With Adobe Acrobat Distiller, which you must to create PDF files, you can export an entire document as a PDF file from Quark press.
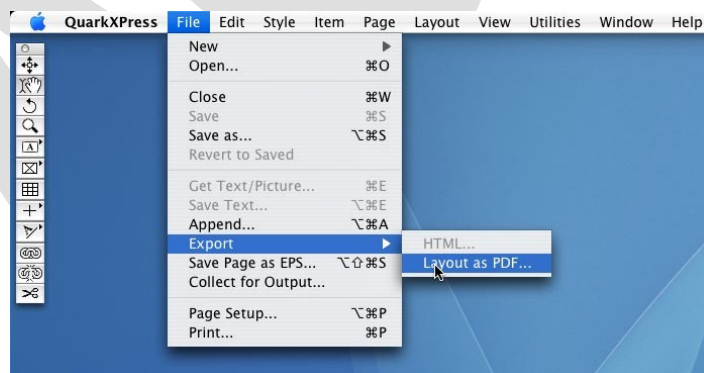
**How to Create PDF Files from QuarkXPress**

To export the active layout in PDF format:

- Choose **File > Export > Layout as PDF**. The Export as PDF dialog box displays.

- Enter a page range in the Pages field.

- To use an existing output style, choose an option from the PDF Style drop-down menu.

- To modify output settings, click Options. Use the panes in the resulting dialog box to control the format of the exported file.

  - To use a PDF output style, choose an option from the PDF Style drop-down menu. To create a PDF output style using the current settings, choose New PDF Output Style.


  - To use PDF/X verification, choose an option from the Verification drop-down menu. Available options include PDF/X 1a and PDF/X 3. Note that PDF/X 1a verification permits only CMYK and spot colors, while PDF/X 3 verification allows you to include colors and pictures that use other color spaces, along with ICC color profiles (which are defined in the source and output setups for color management).

  - Use the **Color pane** to specify whether to create composite output or separations, to choose an output setup for the PDF file, and to select which plates should be included in the output.
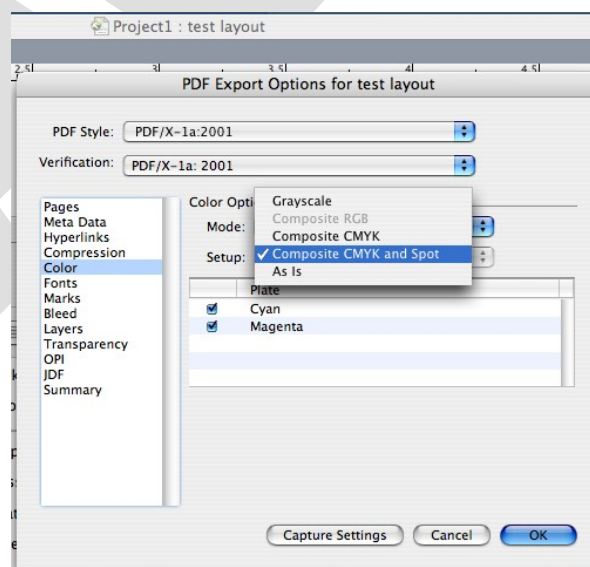

  - Use the **Compression pane** to specify compression options for different image types in the PDF file.

- Use the **Pages pane** to specify whether to export spreads, whether to export each page as a separate PDF file, whether to include blank pages, and whether to embed a thumbnail of the PDF file.
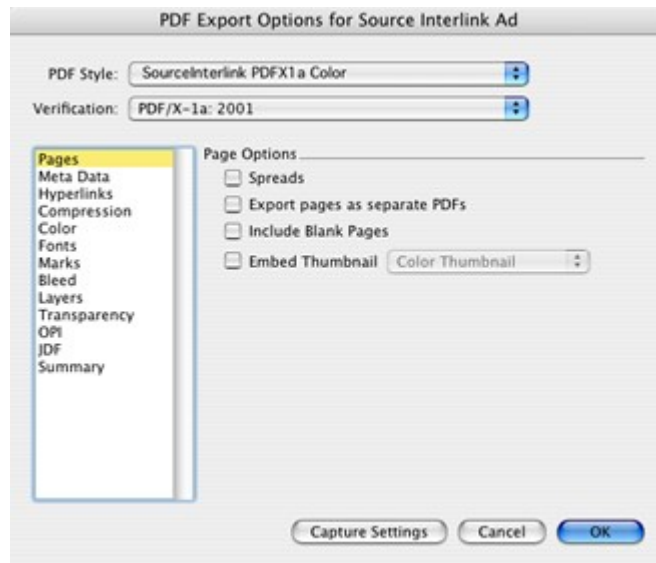
- Use the **Marks pane** to specify the positioning, width, and length of registration marks in the PDF file.
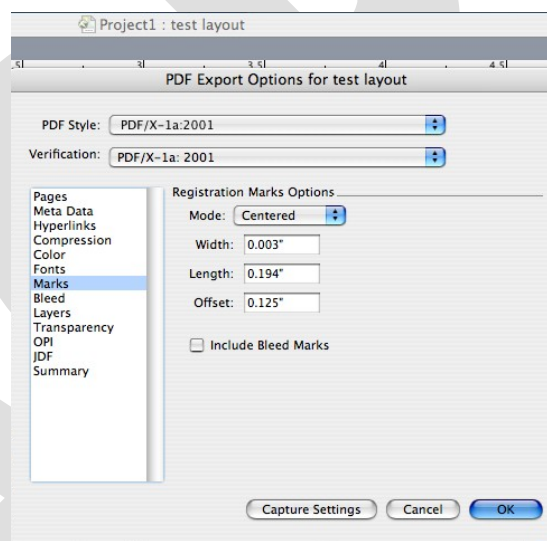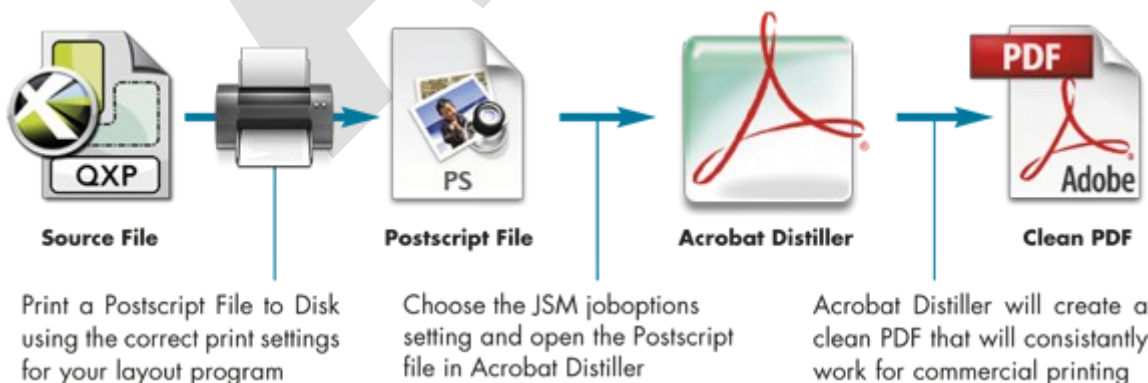

- Use the **Hyperlink pane** to specify how links and lists from the layout export and how hyperlinks should appear in the PDF. You can also use this pane to specify the default zoom of the PDF file.

- Use the **Meta Data pane** to provide the details that display in the Description tab of the Document Properties dialog box in Adobe Acrobat Reader.

- Use the **Fonts pane** to specify which fonts are embedded within the exported PDF file.

- Use the **Bleed pane** to specify how bleeds are handled in the PDF file.
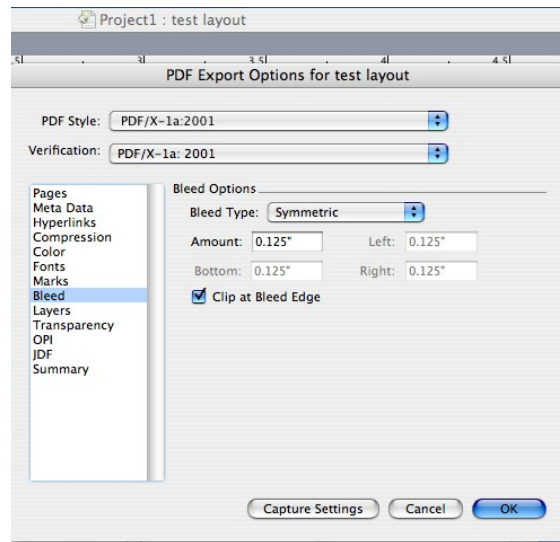
- Use the **Layers pane** to specify which layers to include in the PDF file, and to create PDF layers from the layers in the QuarkXPress layout.

- Use the **Transparency pane** to control how transparent items are flattened. To disable flattening and maintain transparency relationships in the exported PDF, click Export Transparency Natively. To output items without taking their opacity values into account, click Ignore Transparency. To turn on flattening, click Flatten Transparency.

- Use the **OPI pane** to specify options for including high-resolution original images in the PDF file (not available when you choose PDF/X 1a or PDF/X 3 from the Verification drop-down menu).

- Use the **JDF pane** to indicate whether a Job Definition Format (JDF) file should be created at the same time as the PDF file. You might choose to do this if you're using Job Jackets in a JDF workflow.

- Use the Summary pane to view a summary of the selected PDF export options.

- Click OK. (To capture the current settings without creating a PDF file, click Capture Settings.)

- Click Save.

Note: If you are using a third-party distiller program and you want to create a PostScript file, change your settings in the PDF pane of the Preferences dialog box (QuarkXPress/Edit menu).

Source File

Print a Postscript File to Disk using the correct print settings for your layout program

Postscript File

Choose the JSM joboptions setting and open the Postscript file in Acrobat Distiller

Acrobat Distiller

Acrobat Distiller will create a clean PDF that will consistantly work for commercial printing

Clean PDF

27

ADOBE DISTILLER:

Definition: Distiller is part of the Adobe Acrobat family of products. Distiller is the main engine for turning Postscript files into PDF documents. Although there are other programs for generating PDF files, Distiller is the primary one. Some page layout programs can generate PDF files from within the program, but are often simply acting as a fronted to Distiller, which must also be installed.
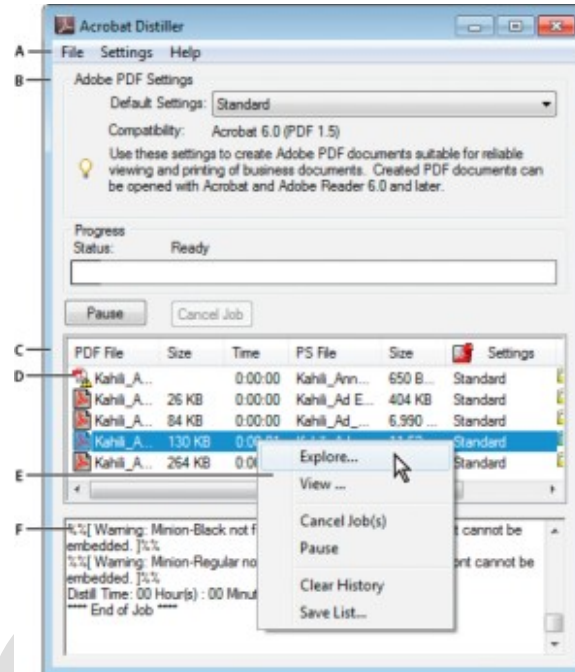

A. Menu B. Adobe PDF settings files C. Files in job queue D. Failed job E. Context menu F. Status window

Create a PDF file in Acrobat Distiller:

Adobe Acrobat Distiller is the most reliable way to create a PDF file. Start with a PostScript file to generate a basic PDF document for email, disk, or Web sharing.

1. **Start With PostScript File.** From your original program save your document as a PostScript (*.ps) file.

2. **Run Distiller.** Start Acrobat Distiller to begin creating your PDF file.

3. **Set Job Options.** Select Distiller | Job Options (Ctrl + J).
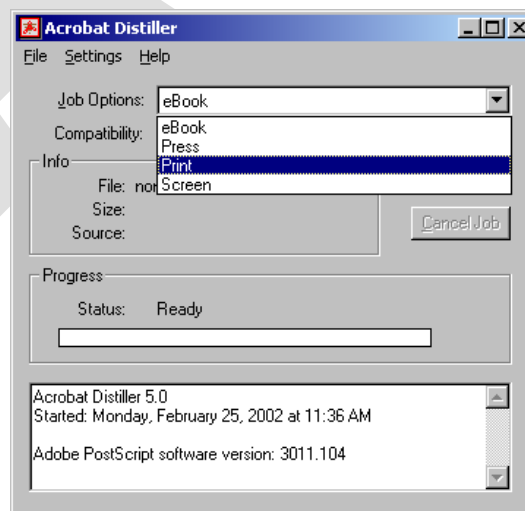
4. **Adjust Settings.** Accept the Default settings or make any required changes such as resolution or amount of compression wanted for your PDF file then click OK.
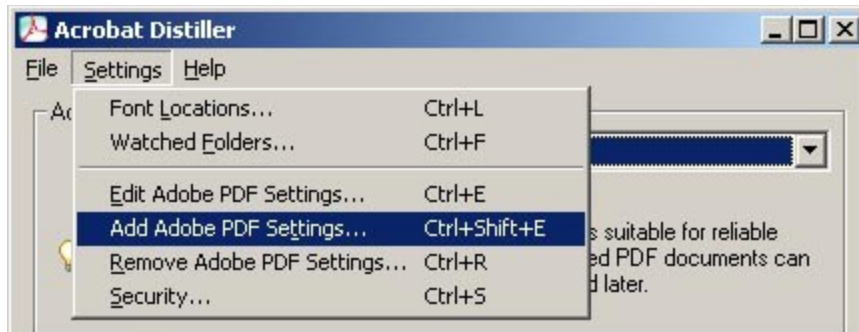
5. **Open PostScript File.** Select File | Open (Ctrl + O) and locate then select your PostScript *.ps file. Click on Open. A new screen appears.

6. **Name PDF File.** Give your PDF file a name (or accept the default) then click Save. PDF file generation begins immediately.

7. **Correct Any Errors.** If Distiller reports errors, go back to your original file to correct errors before generating a new *.ps file to distill.

Types of Job Option in Adobe Distiller

e-book :

Creates Adobe PDF files that will be read primarily on screen on *desktop or laptop computers or eBook readers*, for example. This set of options balances file size against image resolution to produce a relatively small, self-contained file; compresses all information; converts all colors to RGB, or to Monitor RGB (if color management is enables); and embeds subsets of all fonts used in the file (except the Base 14 fonts).

Screen:

Creates compact Adobe PDF files that will be displayed on the *World Wide Web or an internet*, or that will be distributed through an e-mail system for on-screen viewing. This set of options uses compression, down sampling, and a relatively low resolution to create an Adobe PDF file that is as small as possible; converts all colors to RGB, or to monitor RGB (if color management is enabled); embeds subsets of all fonts used in the file (except the Base 14 fonts); maintains compatibility with Acrobat 4.0 and later; and optimizes files for byte serving.

Print:

Creates Adobe PDF files that are intended for *desktop printers, digital copiers, and CD-ROM publishing*; you can also send them to contents as publishing proofs. In this set of options, file size down; still important, but it is not the only objective. This set of options uses compression and down sampling to keep a file size down; leaves colors unchanged; embeds subsets of all fonts used in the file; and print at medium resolution to create a reasonably accurate rendition of the original document.

Press Quality

Creates PDF files for high-quality print production (for example, for digital printing or for separations to an imagesetter or platesetter), but does not create files that are PDF/X-compliant. In this case, the quality of the content is the highest consideration. The objective is to maintain all the information in a PDF file that a commercial printer or print service provider needs in order to print the document correctly.

PDF/X-1a:

PDF/X-1a requires all fonts to be embedded, the appropriate marks and bleeds to be specified, and color to appear as CMYK, spot colors, or both. Compliant files must contain

information describing the printing condition for which they are prepared. PDF files created with PDF/X-1a compliance can be opened in Acrobat 4.0 and Acrobat Reader 4.0 and later.

PDF/X-3:

Converts the document content to a PDF/X-3 compliant representation. Graphical content is converted to a compliant equivalent, if possible, or a warning appears. Like *PDF/X-1a, PDF/X-3 is an ISO standard for graphic content exchange.* The main difference is that PDF/X-3 supports device-independent color. PDF/X-3 files are intended to be used by applications that support PDF/X-3.

PDF/X-4:

This preset creating ISO PDF/X-4:2008 files supports live transparency (transparency is not flattened) and ICC color management. Images are downsampled and compressed and fonts are embedded in the same manner as with the PDF/X-1a and PDF/X-3 settings.

2.3 COPY EDITING SYMBOLS AND MARKS:

What is Copy Editing?

Copy editing is a process that ensures that text is correct in terms of spelling, grammar, jargon, punctuation, terminology, semantics and formatting. Copy editing also ensures that the idea the writer wishes to portray is clear and easy to understand. They make sure any factual data in the text is accurate and that any potential legal issues are brought to the publisher's attention.

What do copy editors do?

- Copy editors will check a piece of writing to see how it flows and make sure it is sensible and fair. They will also change the length of the text to make it acceptable to the publisher's house-style of formatting.

- Copy editors may also be responsible for adding headers, headlines, footnotes and photo-captions.

- The text will be passed to a proofreader for the final checking once the copy editing process has been completed.

What is copyediting?

Copyediting makes sure a piece of writing is accurate, clear and correct.

It's the step that gets a text ready to publish. Specifically, depending on the publication, it involves most or all of the following:

- Checking the facts (names, dates, times, places, past events, etc.).

- Checking the math (percents, totals, tax rates, etc.).

- Ensuring that the writing is free from libel and conforms to the ethical standards of the publication and the profession.

- Smoothing/streamlining prose to make it flow cleanly from one point to the next.

- Trimming unnecessary words to make the prose clearer.

- Cutting to fit in a designated print space while preserving the most important points.

- Eliminating jargon and paraphrasing convoluted quotes to make the writing more understandable.

- Ensuring the grammar, spelling and punctuation are correct.

- Ensuring the prose conforms to style (AP, Chicago, APA, etc.).

- Ensuring all charts, maps and graphics are correct.
- Proofreading print and online pages.

COPY EDITING SYMBOLS AND MARKS:

Symbol	Name	Description
℘	delete	Delete extra letters or unnecessary darling words.
¶	para	¶ Adds a new paragraph.
…	stet	Let it stand. (Indicates that a correction or alteration should be ignored.)
∿	transpose	Transpose a letter or a word that's misplaced been.
#	space	Add a space.
⌐	delete and close up	This is used so the typesetter knows he should delete and close up the space.
⌢	close up	A way to remove pesky ex tra spaces.
◯	spell out	A circled ① or ② or an abbrev means the word should be spelled out.
⊙	period	Dr. Author omitted something small but significant. Circling is also used to convert a comma into a period.
⌃	comma	As you can see, commas get a roof placed over them.
∨	apostrophe	Its easy to miss these.
" " ∨ ∨	quotation marks	Did I forget I was speaking? she said.
≠ ⋼	parens	These odd looking marks are parenthesis. The cross-hatches differentiate them from the letter C.
M̲	em dash	Sometimes your word processor that unapologetic application doesn't convert two hyphens – see?
/	lowercase	Used for letters or WORDS that had an inexplicable growth spurt.
⹀	capitalize	when in new york, do as the romans, the australians, or the martians would do.
∨	superscript	E=mc2, even if we don't understand it, should be E=mc².
∧	subscript	Do we breathe 02 or 0₂?
‒‒‒	italics	I really want a room of my own.
◯	delete italic or bold or underline	Writers should use italics, boldface type, and underlining sparingly.
⌣⌣⌣	bold	Please ensure you choose one of the following birthday presents.
⌐	flush left	Text has a way of shifting when you're not looking.
⌐	flush right	Text can also hang around in the middle, instead of being aligned at the right margin: J.K. Rowling
][	center	This line will be centered.
│	align	A few great authors: Norman Rush David Foster Wallace William Stegner

Qualification and duties of the copy editor:

- Copy editors require a number of skills, including an excellent command of the language, an ability to identify factual errors, an eye for detail and critical thinking skills that allow them to see inconsistencies in the work.

- They also need excellent interpersonal skills so that they can communicate effectively with publishers and other editors.

- In reality copy editing is a vague term that varies from employer to employer. So, some copy editors may be expected to carry out all the functions described above and others may only fulfil a few of these duties.

- Copy editors are also referred to as sub-editors in the magazine and newspaper industry.

- He is an assistant of the proof reader he should know he proof reading marks, language and its meaning, grammar, punctuation, style of the house, and style of the work, size of the type and name of the face, typographical elements, edit the manuscript, work devising, capitalization, abbreviation etc.

- He must have good handwriting and he must be able to read bad handwriting copied.

- He must know how to read loudly and clearly at study speed with fine pronunciation and voice.

- He should spell out obscure word, unusual names and places. He should read out the punctuation marks by saying "comma" "point" "Quote", etc., and typographical details, such as 'cops' new Para, etc., figures such as 67,000 should be read as 6-7 three unless the number is to be spelled out.

- He should regulate and equalize the speed in reading the copy

- He should stop reading the copy wherever required to give time to the proofreader to mark necessary corrections. He should repeat the word where desired.

- He should read every instruction that is given to a particular work to the proofread.

2.4 PROOF READING

Proofreading is the reading of a galley proof or an electronic copy of a publication to detect and correct production errors of text or art.

Proofreading is the process of finding and correcting spelling, grammar, punctuation and formatting errors. If you had proofread your book listing, you would've been able to afford that matinee show. Proofreading errors, even if they cost nothing as far as money, can be pretty embarrassing. Failing to properly proofread your material before it leaves your desk can not only be embarrassing, but also lead to miscommunication.

Careful reading (and rereading) of a (yet to be finally-printed) document, to detect any errors in spelling, punctuation, or grammar. It may also involve checking of different elements of a layout (such as headlines, paragraphs, illustrations, and colors) for their correct dimensions, placement, type, etc. Every author knows that (despite the spelling checking abilities of modern word processors) a human proof reader is indispensable.

What's the Difference Between Copy Editing and Proofreading?

Copy editing

The tasks involved in copy editing include checking written material for grammar, spelling, style, and punctuation issues before it's prepared for proofreading. A copy editor may also do a rewrite, if necessary, to fix any problems with transitions, wordiness, jargon, and to ensure the style of the piece fits with the publication. This work is known as revision.

'A copy-editor makes sure that an author's raw text, or copy, is correct in terms of spelling and grammar and is easy to read so that readers can grasp his or her ideas. A copy-editor also tries to prevent embarrassing errors of fact, alert the publisher to any possible legal problems and ensure that the typesetter can do a good job.'

Proofreading

When the material is nearly a finished product, meaning it has been edited, laid out, and designed, the proofreader searches for typographical errors. The proofreader works with a facsimile of a finished product, or a proof (hence the term proofreading). Proofreaders don't suggest major changes to the text; rather, they look for minor text and formatting errors and confirm the material is ready for publication.

'The proofreader reads the copy for consistency in usage and layout, for accuracy in the text and references and for typesetting errors. The proofreader, however, is only acting as a quality check, making sure that the copy-editor or typesetter has not missed something. He or she is not responsible for overall consistency and accuracy.'

Proofreading Symbols

Proofreading symbols are designed to save you time while improving the quality of your work. You can use these symbols to correct misspellings, punctuation errors, and even formatting issues. On screen are the most commonly used symbols.

Proofreading Marks

The mark	What it means	How to use it
	Delete: take out something here.	car mufflers should should
∧	Insert: add something here.	You afraid o mice. (are)
	Add space here.	Jugglers buy a lot of eggs.
⌒	No space: close the gap.	some body
	Delete and close the gap.	the giraffe
¶	New paragraph here.	"Yes." said Jack. "All right." said Jill.
	No paragraph: keep sentences together.	The meeting was brief. It lasted twenty minutes.
∩	Transpose: switch these things.	freinds both were
∧	Change or insert this letter.	lake sucess (i) (c)
≡	Make this a capital letter.	old dr. smith
/	Make this a small letter.	My Uncle lost a Shovel.
O	Spell it out.	His 2 friends are Fido & Spot.
⊙	Insert a period.	It was raining I got wet
∧	Insert a comma.	"London England," he said.
V	Insert an apostrophe.	Its a dogs life.
V V	Insert quotation marks.	"You're a pane. said the door.
(?)	Is this correct? Check it.	Columbus sailed in 1942. (?)

Proofreading Methods:

1.   Proofread slowly and with great care. Do not read at your normal reading speed as you will easily overlook errors that way.

2.   Make all necessary corrections using the proofreader's marks.

3.   ALWAYS make a backup copy of the proofs after you have finished correcting them. Not only will the copy serve as a reference should questions arise later, but it will preserve your work should the proofs you send to wile be accidentally misplaced or lost in the mail.

4. Do NOT enter corrections between lines of type. Such markings can easily be overlooked or misread. Place corrections. Place corrections neatly in the margins.

5. Do NOT use black capital letters when writing corrections. . The typesetter cannot interpret which letters are meant to be capitals and which lowercased

6. If an error was made by the typesetter, write and circle the letters "PE" (printer's error) in the margin (see portion of a corrected galley. This will prevent PEs form being charged against your contractual allowance for author's alterations, since these types of errors are corrected free of charge. If a correction appears without the notation "PE", it is assumed to be an author's alteration and the typesetter will charge for making it.

7. Be brief exact in writing your corrections. Do not give explanations for your alterations. Unnecessary written comments only clutter up the proof page and confuse the typesetter about what change is actually wanted.

8. Draw a vertical line through an incorrect character or a horizontal line through an incorrect word in passage in the text. Write the new text or the instructions to the typesetter in the margin adjacent to the text being corrected.

9. To show that new material is to be added, place a caret(^) at the point in the text line where material is to be added. Then write the new material in the adjacent margin

10. If there are two or more corrections in a line, the corrections should appear in the margin in their proper order, separated by a slash (see portion of a corrected galley).

11. To show that material crossed out in the text is to be removed, write a deletion sign in the adjacent margin (see portion of a corrected galley).Do NOT rewrite the material that is to be deleted next to the deletion sign in the margin. DO NOT use the deletion sign if new material is to be substituted for the crossed out material.

12. To insert a space, write a caret (^) in the text where the space is wanted, then write the space mark (#) in the adjacent margin.

13. To remove a space, use the close-up sign in both the text and the margin.

Unit - II

2 Mark Questions

1) Define PDF.

PDF (Portable Document Format) is a file format that has captured all the elements of a printed document as an electronic image that can view, navigate, print, or forward to someone else.

2) Who is the inventor of PDF file format.

Adobe Systems, Inc

3) Write any two applications of PDF.

- Share files with others use a different platform. (Mac, Windows, Linux, etc.).
- Share files that can be protected from unauthorized view.
- Publish electronic documents, ebooks, etc.

4) Write any two software used in PDF production.

1. Adobe Indesign
2. Quark xpress
3. Adobe distiller

5) Mention any two job option in adobe distiller.

E-book, Press, Print, Screen

6) What is the main responsibilities of copy editor?

To ensure the mechanical accuracy of spelling, punctuation, and grammar, as well as the stylistic consistency of the writing.

7) What is the meant by the ⋀ symbol?

To insert a word, letter, or phrase

8) Mention the path for exporting a document.

File =>> Export

9) What is the use of proof reading?

Accurate proofreading and clear marking of corrections are indispensable requisites to the production of a quality book.

10) Mention the program used to view the PDF file.

Acrobat reader or Adobe reader

11) What is the difference between PDF/X-1a and PDF/X-3?

The main difference is that PDF/X-3 supports device-independent color.

12) Mention some added value features using PDF files.

Create files with annotations, hyperlinks, and book marks that can be shared via email and the web.

13) What the navigation elements in PDF file?

Hyperlinks, table of contents entries, index entries, and book marks

3 Mark Questions

1. Mention the importance of PDF.

A PDF file captures document text, fonts, images, and even formatting of documents from a variety of applications like e-mail a PDF document and it will look the same way on his screen as it looks on others, even if have Mac and PC.

2. What you understand about PDF Predefined presets?

A PDF preset is a predefined set of PDF options that you can use for creating PDF files. The settings in these presets are designs to balance file size with quality, depending on how the Adobe PDF file is to be used.

3. What are the advantages of PDF?

11.   Streamline the printing process with faster and cleaner communication,

12.   Speed the review and approval of creative proofs

13.   Lower production costs

14.   Increases reliability.

4. Define Adobe Distiller:

Distiller is part of the Adobe Acrobat family of products. Distiller is the main engine for turning Postscript files into PDF documents.

5. What is meant by Proof Reading?

Proofreading is the reading of a galley proof or an electronic copy of a publication to detect and correct production errors of text or art.

6. Define Copy editing?

Copy editing is a process that ensures that text is correct in terms of spelling, grammar, jargon, punctuation, terminology, semantics and formatting. Copy editing also ensures that the idea the writer wishes to portray is clear and easy to understand.

7. What are the features available in adobe reader?

Buttons for forms entry and for triggering sound and Quicktime or AVI movies and optimized for the Web by rendering text before graphic images and hypertext links.

8. Why is proof reading symbols require?

Symbols are the main medium of communication for errors and mistakes between the proof reader and the compositor. These marks were developed to indicate the mistakes with the least possible writing on the proofs.

10 Mark Questions

1. Explain about basic principles of PDF and write about applications of PDF.

2. Describe about creation of PDF using Adobe Indesign software.

3. Explain in detail about creation of PDF using Quark Xpress software.

4. What are steps involved in PDF creation using Adobe distiller?

5. Discuss about the different proof reading symbols with examples.

6. Explain about methods of proof reading.

7. (i) What are the difference between Copy Editing and Proofreading?

    (ii) What are the qualification and duties of the copy editor?

****

Unit III – HTML

3.1 ITRODUCTION TO HTML

HTML stands for "Hyper Text Markup Language". This language is used for creating and displaying web pages using any web browser like Internet explorer, Netscape navigator, Firefox etc. This was developed by Tim Berness Lee of European center for particle physics in the year 1989.

HTML defines the page layout, fonts and graphic elements as well as the hyper text links to other documents on the web. Each link contains the URL, or address, of a web page residing on the same server or any server world wide, hence "World Wide" web.

The following gives the meaning of HTML:

Hyper text: This is ordinary text dressed up with extra features like formatting, images, multimedia and links to other documents.

Markup: It is a process of taking ordinary text and adding extra symbols. Each symbol used fir markup in Html is a command that tells the browser about its display.

Languages: HTML is a computer language like c, java etc. It has its own syntax, and rules for proper communication.

Using HTML we can markup our document by indicating the different parts of our document by functions. According to this the browser displays the document anywhere in the world. When you save an HTML file, you can use either the .htm or the .html extension.

What is HTML?

HTML is a language for describing web pages.

- HTML stands for Hyper Text Markup Language
- HTML is a markup language
- A markup language is a set of markup tags
- The tags describe document content
- HTML documents contain HTML tags and plain text
- HTML documents are also called web pages

BASIC TAGS AND SYNTAX

Tag

HTML elements are defined by HTML tags in the form of either a pair of tags (start and end tags) that define a container element or a single tag that defined an empty element.

An HTML tag is inserted into a document between less than (<) and greater than (>) characters (also referred to as left or right angle brackets). For instance, a start tag of a container element (or the single tag composing an empty element) looks like this:

```
<tag name>
```

To distinguish a container element's end tag from its start tag, a forward slash (/) is inserted in front of the tag's name:

```
</tag name>
```

To mark a section of text as forming an element, you bracket it inside a start tag and an end tag, like this:

```
<tag name> element content  </tag name>
```

For instance, text contained in a level-one heading tag looks like the following, where <h1> is the start tag and </h1> is the end tag:

```
<h1> This Is a Level-one Heading </h1>
```

HTML Tags

- HTML tags are keywords (tag names) surrounded by angle brackets like <html>
- HTML tags normally come in pairs like and
- The first tag in a pair is the start tag, the second tag is the end tag
- The end tag is written like the start tag, with a forward slash before the tag name
- Start and end tags are also called opening tags and closing tags

```
<tagname> content </tagname>
```

Web Browsers

The purpose of a web browser *(such as Google Chrome, Internet Explorer, Firefox, Opera, Netscape navigator*, *Safari)* is to read HTML documents and display them as web pages.

The browser does not display the HTML tags, but uses the tags to determine how the content of the HTML page is to be presented/displayed to the user:

Writing HTML Using Notepad or TextEdit

HTML can be edited by using a professional HTML editor like:

- Adobe Dreamweaver
- Microsoft Expression Web
- CoffeeCup HTML Editor

However, for learning HTML we recommend a text editor like Notepad (PC) or TextEdit (Mac).

3.2 The important basic tags:

1. html
2. head
3. title
4. body

1. Html tag:

The HTML tag is used to fix the beginning and end of an HTML document. The general form is,

```
<html>
        ……
        ……
        ……
</html>
```

Where

```
<html>    - opening tag
</html>   - closing tag
```

All html programs must start with the tag <html> and end with the tag </html>

2. Head tag:

Head tag is used to describe the content of the HTML document and it is an optional tag. It is like a cover page of a document. The information contained in the head tag is generally referred as meta information. The general form is,

```
<head>
        ……
        ……
        ……
</head>
```

Where

```
<head>    - opening tag
</head>   - closing tag
```

3. Title tag:

Title tag is used to define the title of the html document. This is including with in the Head tag. The information given in this tag is displayed in the title bar of the window. The general form is,

```
<title>
    Title of the document
</title>
```

where

```
<title>  - opening tag
<title>  - closing tag
```

In html documents there must be only one title element.

Example:

```
<html>
<head>
<title>  My first html program </title>
</head>
</html>
```

The information my first html program will be displayed in the title bar.

4. Body tag:

Body tag contains the information to be displayed in the page. The general form is,

```
<body attributes = value">
Information to be displayed in the web page
</body>
```

The attributes are:

Body attributes	Uses of attributes
Background	This attributed is used to set a background image.
Bg color	This attributes is used to set a background color.
Text	This attributes is used to be set the color of the text to be displayed.
Vlink	This attributes is used to set the color for the visited Links.
Top margin	This attributes is used to set the top margin between the browser window and its content.
Left margin	This attributes is used to set a left margin between the browser window and its content.

Example

```
1. <body background = "clouds.jpg">
        Welcome
    </body>


2. <body bgcolor = "BLACK" text= "White">
        Welcome
```

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```
</body>
```

The information welcome will be displayed with white text and black background color.

Creating a HTML file

Follow the 4 steps below to create your first web page with Notepad.

Step 1: Start Notepad

To start Notepad go to:

Start
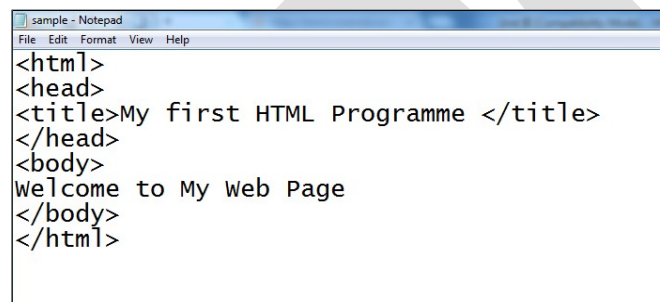
  All Programs

    Accessories

      Notepad

Step 2: Edit Your HTML with Notepad

Type your HTML code into your Notepad:

```
sample - Notepad
File Edit Format View Help
<html>
<head>
<title>My first HTML Programme </title>
</head>
<body>
Welcome to My Web Page
</body>
</html>
```

Step 3: Save Your HTML

Select **Save as..** in Notepad's file menu.

When you save an HTML file, you can use either the .htm or the .html file extension. There is no difference, it is entirely up to you.

Save the file in a folder that is easy to remember.

Step 4: Run the HTML in Your Browser

Start your web browser and open your html file from the File, Open menu, or just browse the folder and double-click your HTML file.

The result should look much like this:

```
C:\Users\intel\Desktop\sample.html                    My first HTML Programme  ×

Welcome to My Web Page
```
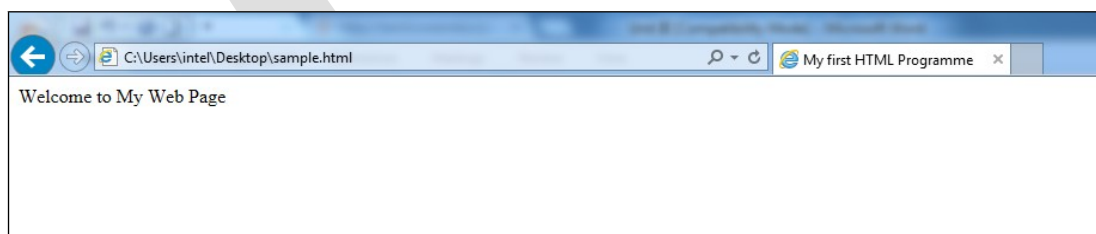
Every HTML document must begin with the <html> tag and end with its complement, the </html> tag. In addition to the <html> tag, this document includes three other pairs of tags that should be included in any HTML document:

1. The <head> and </head> tag pair is used to indicated any information about the document itself. You'll learn how to add some of this information in later lessons.

2. The <title> and </title> tags are used to add a title to your browser's title bar. The title bar is the colored band at the top of any application that gives the name of the application.

3. The <body> and </body> tags are used to surround any text that appears in the HTML page.

4. All HTML documents are separated into two parts: the head and the body. Because the title contains information about the document, the <title> and </title> tags are placed within the <head> and , </head> tags.

5. To view your own page in a browser, you must first save it. Because you've created an HTML document, you want to save your file with an .htm extension (first.html, for example) so that you recognize it quickly.

6. You can preview any HTML file in your browser, even when that file is stored on your computer rather on a web server. In Internet Explorer, you can view your new file by selecting open from the file menu.

Font Formatting Tags:

1. Bold tag:

This tag is used to display the given text in bold letters. The general form is,

```
<b>
Text to be displayed
</b>
```

2. Italics tag:

This tag is used to display the given text in italics. The general form is,

```
<i>
Text to be displayed
</i>
```

3. Underline tag:

This tag is used to determine the given text. The general form of underline tag is,

```
<u>
Text to be under lined
</u>
```

4. Paragraph tag:

This tag is used to begin a new paragraph general form,

```
<p attributes ="value" >
Text to be displayed
</p>
```

The closing tag </p> is optional. This has only one attributes namely "align".

The different values are:

```
Align ="left"         : This aligns the following paragraph to left.
                         This is the default alignment.
Align ="right"        : This align the following paragraph to Right.
Align ="center"       : This align the following paragraph to Center.
Align ="justify "     : This justifies the following paragraph.
```

5. Break tag:

This tag is used to break the text following the <br> and bought it to the next line. This has no closing tag. The general form of break tag is,

```
<br>
Text to break
</br>
```

Example

```
<html>
<head>
<title>  My first html program
</title>
Yes we proud
<br>
<body> I am an <b> Indian </b>
</body>
</head>
</html>
```

6. Horizontal Line tag:

This tag is used to draw a horizontal line from left to right. This has no closing tag. The general form is,

```
<hr>
```

7. Font tag:

This tag is used to specify the size of the font and color of the text to be displayed. The general form is,

```
<font attributes = "value">
</font>
```

The attributes are,

`Color` : This attributes is used to set a specific color to the text within the

`Tags` : It can take values as red, green etc.

`Face` : This attributes is used to set the type of the font to the text within the tag. It can take values as Arial, Roman etc.

`Size` : This attributes is used to set font size to the text within the tags. It can take values between 1 to 7.

Example

1. `<font color = "blue">`

    `Department of printing technology </font>`

    The text will be displayed in blue color

2. `<font face = "Arial"> Arasan Ganesan Polytechnic College`

    The text will be displayed in arial font

3. `<font size ="7"> e publishing  </font>`

    The text will be displayed in maximum size

8. Emphasize tag:

This tag is used to given importance (emphasize) to portion of a text or full text. The general form is,

```
<em> I 'm an Indian </em>
The text will be displayed in bold face
```

9. Teletype tag:

This tag is used to display the enclosed text in teletype font. That is the text will be mono spaced to look like a typewriter font. The general form is

```
<tt>
Text to be displayed
</tt>
```

10. Preserve tag:

This tag is used to preserve the line breaks and horizontal spacing in our text. The general form is,

```
<pre>
Text to be displayed
</pre>
```

11. Meta tag:

This tag is used to define the information about the document itself. The important information to be defined is,

1. Name of the document generated software.
2. Keywords used in the document
3. Details about the author of the document.

4. To get details about the date of modification of our document from the server.

Meta tag is including in the head tag and it has no closing tag. The general form is,

```
<meta name or http-equiv ="value" content="value">
```

The attributes are,

Name   : This attributes is used to give the details about the author, software used, keywords etc.

http-equiv   : This attributed is used to get information from the server.

Content   : This attributes is used to store the content of the attributes name and http-equiv.

Example

```
<meta name = "author" content = "ramkumar'

<meta name = "keyword" content = "birds, restaurants,

Books">

<meta http-equiv = "expires" content = "web 2 oct 2008

7:30 gmt>
```

12. Header tag:

These tags are used to give headings in html documents. There are six levels of heading in HTML. Each level has its own font size. They are

```
<h1>            …     </h1>
<h2>            …     </h2>
                …
                …
<h6>            …     </h6>
```

Example

```
<h1>    e-publishing          </h1>
<h2>    e-publishing          </h2>
<h3>    e-publishing          </h3>
<h4>    e-publishing          </h4>
<h5>    e-publishing          </h5>
<h6>    e-publishing          </h6>
```

3.3 IMAGE HANDING using HTML:

3.3.1 HTML Images

The Image tag and the src Attribute

In HTML images are defined with the <img> tag. The <img> tag is empty, which means that it contains attributes only and it has no closing tag.

To display an Image on a page, you need to use the Src attribute. Src stands for "source". The value of the src attribute is the URL of the image you want to display on your page.

The syntax of defining an image:

```
<img src="url">
```

The URL points to the location where the images is stored. An image named "boat.gif" located in the directory "images " on www.w3schools.com"has the URL: http//www.w3schools.com/images/boat.gif.

The browser puts the image where the image tag occurs in the document. If you put an image tag between two paragraphs, the browser shows the first paragraph, then the image, and then the second paragraph.

The Alt attribute:

The alt attribute is used to define an "alternate text" for an image. The value of the alt attribute is an author-defined text:

```
<img src ="boat.gif" alt = "big boat">
```

The "alt"attribute tells the reader what he or she is missing on a page if the browser can't load images. The browser will then display the alternate text instead of the image. It is a good practice to include the "alt" attribute for each image on page, to improve the display and usefulness of your document for people who have text-only browsers.

Examples

1. Add an image:

This example demonstrates how to add an image to an HTML page.

```
<html>
<body>
<img src="picture.gif">
</body>
</html>
```

2. Aligning images:

This example demonstrates how to align an image within the text.

```
<html>
```

```
<body>
<img src="picture.gif" align="right">
</body>
</html>
```

3. Display an alternate text for an image:

This example demonstrates how to display an alternate text for an image. The "alt" attribute tells the reader what he or she is missing on a page if the browser can't load images. It is a good practice to include the "alt" attribute for each image on a page.

```
<html>
<body>
<img src="picture.gif" alt="flower">
</body>
</html>
```

4. Make a hyperlink of an image:

This example demonstrates how to use an image as a link.

```
<html>
<body>
<a href="last page.html">
<img src="picture.gif">
</a>
</body>
</html>
```

5. Change the size of the image:

This example demonstrates how to change the size of the image.

```
<html>
<body>
<img src="picture.gif" Height="100" Width="50">
</body>
</html>
```

6. Display Background color

An example of a background color and that makes the text on the page easy to read.

```
<html>
<body bgcolor="Red">
<img src="picture.gif">
</body>
```

```
</html>
```

8. Display an image at Back ground

If the image is smaller than the browser window, the image will repeat itself until it fills the entire browser window.

```
<html>

<body background="picture.gif">

</body>

</html>
```

3.4   INTRODUCTION TO CSS

The full form of CSS is *cascading style sheet*. This is a technique used to add styles (font, color etc) to our web documents. The main objectives of CSS are to separate document content from its style of presentation. Styles define **how to display** HTML elements. Styles are normally stored in styli sheets. External style sheets can save you a lot of work external style sheets are stored in CSS files. Multiple style definitions will cascade into one.

HTML tags were originally designed to define the content of a document. They were supposes to say "This is a header", 'This is a paragraph", "this is a table", by using tags like <h1>,<p>,<table>, and so on. The layout of the document was supposed to e taken care of by the browser, without using any formatting tags.

As the two major browsers – Netscape and internet explorer – continued to add new HTML tags an attributes (like the <font> tag and the color attribute to the original HTML specification, it became more and more difficult to create web sites where the content of HTML documents was clearly separated from the document's presentation layout. To solve this problem, the World Wide Web consortium (w3c) – the non profit, standard setting consortium, responsible for standardizing HTML – created STYLES in addition to HTML ver4.0.

Style sheets can save a lot of work

Styles sheets define HOW HTML elements are to be displayed, just like the font tag and the color attribute in HTML. Styles are normally saved in external .css files. External style sheets enable you to change the appearance and layout of all the pages in your web, just by editing one single CSS document. CSS is a breakthrough in web design because it allows developers to control the style and layout of multiple web pages all at once. As a web developer you can define a style for each HTML element and apply it to as many web pages as you want. To make a global change, simply change the style, and all elements in the web are updated automatically.

Multiple styles will cascade into one

Style sheets allow style information to be specified in many ways. Styles can be specified inside a single HTML element, inside the <head> element of an HTML page, or in an external CSS file. Even multiple external style sheets can be referenced inside a single HTML document.

Cascading order:

What style will be used when there is more than one style specified for an HTML element?

Generally all the styles will "cascade" into a new "virtual" style sheet by the following rules, where number four has highest priority:

1) Browser default.

2) External style sheet.

3) Internal style sheet (inside the <head> tag.

4) Inline style (inside an HTML element).

So, an inline style (inside an HTML element) has the highest priority, which means that it will override a style declared inside the <head> tag, in an element style sheet, or in a browser (a default value).

Syntax:

The CSS syntax is made up of three parts: a selector, a property and value. CSS syntax is defined as the principles and rules for constructing a style sheet. The general form is

```
Selector {property: value}
```

Where

```
Selector   : valid html element/tag

Property    : attribute of the element to be changed

Value       : value of the attribute
```

If we want to give more than one property, each property must be separated by a semicolon.

Example

```
i. body {color:black}
```

In this, the color attribute of the body (document content) element is set to black.

```
ii. body {font-family:Arial:color:green}
```

3.4.2 Inserting a style sheet into a document:

When a browser reads a style sheet, it formats the document according to it. There are four methods to insert a sheet into a document. They are following,

1. External style sheet.

2. Internal style sheet.

3. Inline style sheet

4. Multiple style sheet.

1) External style sheet:

External style sheets are files which contain codes for providing styles to the document. These files stored separately with css extension. This .css files can be referred by any number of html pages using <link> tag. The steps to create an external style sheets are.

1. Open any text editor (note pad) and edit the style code according to the syntax.
2. Save the file with .css extensions.
3. The .css file can be referred by any document using <link tag>.

Example:

Set background color, font, text color, font size using external style sheet.

Step 1: *Create .css file*

```
hr{color:red}
font{size:18pt}
```

Save the file as **example.css**

Step 2: *Referring the created external style sheet in a html document.*

```
<html>
<head>
<link rel="stylesheet" href="example.css">
</head>
<body>
<font>E publishing</font>
<hr>
</body>
</html>
```

The style of the content in the body of the html document will be changed according to the define styles in example .css file

2) Internal style sheet:

Internal style sheets are written within the html document. The general form is following,

Example

```
<html>
<head>
<style>
hr{color:red}
font{size:18pt}
</style>
</head>
<body>
```

```
<font>E publishing</font>
<hr>
</body>
</html>
```

The style of the content in the body of the html document will be changed according to the defined styles inside the

```
<style>  …… </style> tags.
```

3. Inline Style Sheet:

Giving styles to each line in a html document separately using <style> tag is called inline style is not a CSS. This is because; the content and styles are mixed within the html document.

Example

```
<html>
<head>
</head>
<body>
<font style=color:red >
 E publishing
</font>
</body>
</html>
```

4. Multiple style sheets

The methods of using both internal and external style sheets within a single html document is called *multiple style sheets*. During execution the style values which are not present in the internal style sheet will be taken from external style sheet. All other values will be taken from external sheets.

Example

Consider an external style sheet given below.

```
hr{color:red}
font{size:18pt}
```

Store this using **external.css**

Consider the following html document with external and internal style sheet.

```
<html>
<head>
<link rel = "stylesheet" herf="external.css">
<style>
font{color:blue}
</style>
```

```
</head>
<body>
<font>E publishing</font>
<hr>
</body>
</html>
```

The resulting styles for body content will be as follows.

```
Color : red          – taken from external css
Font – size : 18 pt  – taken from internal css
```

3.4.4 CSS properties

1) CSS Background:

This property is used to control the background effect of an element or tag. The general from is,

```
Selector { attribute : value }
```

Where

```
Selector – valid html elements such as body, p,h1 etc.
```

CSS Background: Important attribute and its values are:

Attributes	Value
Background color	Vaild color such as Red, Blue, Green etc
Background image	Image file-name
Background – position	Top left, top center center left, center right etc.

Example

1. Body { back ground – color : yellow}
2. Body { back ground – image : filename.gif}

2) CSS Text:

This property is used to control the appearance of the text. The general form is,

```
Selector {attribute : value }
```

Where

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```
Selector – valid html elements
```

Example

```
Body {color : black }
H1 {letter – spacing : -3px }
```

CSS Text: Important attribute and its values are

Attributes	Description	value
Color	To set the color of the text	Red, Blue, Green
Background color	To set background color for a part of text	Red, Blue, Green
Line – height	To set the space between lines in a text	90%, 100%, 200%
Letter – height	To set the space between character	-3px, 0.5cm

3) CSS Font:

This property is used to control the font properties such as font – family, size etc. the general form is,

```
Selector { attribute : value }
```

Where

```
Selector – valid html elements
```

CSS Font: *Important attributes and its values are*

Attributes	Description	Value
Font – family	To set the type of the font	Arial, courier etc
Font – size	To set the size of the font	4 to 72
Font – style	To set the font style	Normal, bold, bolder

Example

```
1. body{font-family:courier}
```

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```
        2. p{font-style:normal,font-weight:bold}
```

4) CSS border:

This property is used the style and color of the elements border. The general form is,

```
        Selector { attributes : value }
```

Where

```
        Selector – valid html element
```

CSS border: *Important attributes and its values are*

Attributes	Description	Value
Border – style	To set the style for all four border	None, dotted, dashed, solid, etc
Border – color	To set color for all the four borders	In cm, in px, in%
Border – top – style	To set style for top border	In cm, in px, in%
Border – width	To set the width for the four border	In cm, in px, in%

Example

```
        1. table { border – color : red}
```
   all four border will be red
```
        2. table { border – style : dotted}
```
   all four borders will be dotted

5) CSS Outline:

This property is used to draw a line around an element outside the border edge. This property will not work in internet explorer. The general form is,

```
        Selector { attributes : value }
```

Where

```
        Selector – valid html element
```

CSS Outline: *Important attribute and its values are*

Attributes	Description	Value
Outline – colorto	Set the color of the out line around an element	Red, green etc.

Outline – styleto	Set the style of the outline around an element	Dotted, dashed solid etc.
Outline – width	To set the width of the outline around an element	Thin, medium, thick, length.

Example

```
H1 {outline – style : solid;
Outline-width : medium }
```

6) CSS Margin:

This property is used to control the space around the elements. The general form is,

```
Selector { attribute : value }
```

Where

```
Selector – valid html element
```

Example

```
Body { margin – right : 25% }
Body { margin – top : 20 px }
```

CSS Margin: *Important attributes and its values are*

Attributes	Description	Value
Margin – bottom	To set bottom margin of an element	In cm, in px, in %
Margin – left	To set left margin of an element	In cm, in px, in %
Margin – top	To set top margin of an element	In cm, in px, in %
Margin – right	To set right margin of an element	In cm, in px, in %

7) CSS Padding:

This property is used to control the space between the element border and element content. The general form is,

```
Selector { attribute : value }
```

Where

```
Selector – valid html element
```

CSS Padding: *Important attributes and its values are*

Attributes	Description	Value
Padding – bottom	To set the bottom padding of an element.	In cm, in %
Padding – left	To set the left padding of an element	In cm, in %
Padding – right	To set the right padding of an element	In cm, in %
Padding – top	To set the top padding of an element	In cm, in %

8) CSS List:

This property is used to control the list – item marker or to set an image as the list – item marker. The general form is,

```
Selector { attribute : value }
```

Where

```
Selector – valid html element
```

CSS List: *Important attributes and its value are*

Attributes	Description	Value
List – style – image	To set an image as the list item marker	Url 'file name'
List – style – position	To set the position of the list item marker in the list	Inside, outside
List – item – style	To set type of the list item marker	Disc, circle, square, zero, lower – roman, upper – roman etc

Example

```
1. ul { list – style – positions : inside }
2. ol { list – item – style : circle }
```

9) CSS Table:

This property is used to set the table layout. The general form is,

```
Selector { attribute : value }
```

Where

```
Selector – valid html element
```

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CSS Table: *Important attributes and values are:*

Attributes	Description	Value
Border – collapse	To set whether the table borders ate collapsed into a single border or detached in html the style for all four border	None, dotted, dashed, solid, etc
Border – spacing	To set the distance between the cell border	In px
Caption – side	To set the position of the table caption	Top, bottom, left, right
Empty cell	To set whether or not to show empty cell in a table	Show, hide
Table – layout	To set the display of the table cells, rows, columns	Auto, fixed

Example

```
1. table { border – collapse : separate }
2. table { border – spacing : 10x }
3. table { empty – cells : show }
```

Unit III

2 mark questions

1. **What does HTML stand for?**

   Hyper Text Markup Language.

2. **Write the correct HTML tag for the largest heading**

   <h1>

3. **What is the correct HTML for adding a background color?**

   <body bgcolor= "yellow">

4. **Write the correct HTML tag to make a text bold & Italic**

   <b> , <i>

5. **What is the correct HTML tag for inserting an image?**

   <img src = "cinstr4.gif">

6. **Write any two name of web browser.**

   Internet explorer, Netscape navigator, Firefox, Opera

7. **What is meant by Markup?**

   It is a process of taking ordinary text and adding extra symbols. Each symbol used fir markup in Html is a command that tells the browser about its display.

8. **Define tag.**

   HTML elements are defined by HTML tags in the form of either a pair of tags. An HTML tag is inserted into a document between less than (<) and greater than (>) characters.

9. **What is meant by Head tag.**

   Head tag is used to describe the content of the HTML document. It is like a cover page of a document.

   ```
   <head>- opening tag
   </head> - closing tag
   ```

10. **Expand CSS.**

    Cascading style sheet

11. **Define Style sheet.**

    Styles sheets define how HTML elements are to be displayed, just like the font tag and the color attribute in HTML.

12. **What is the syntax of CSS?**

    The CSS syntax is made up of three parts: a selector, a property and value.

    ```
    Selector {property: value}
    ```

13. **What is meant by multiple style sheets?**

    The methods of using both internal and external style sheets within a single html document are called multiple style sheets.

14. **Write tag for new paragraph.**

    <p>

15.   What is the meaning of Hyper text.

This is ordinary text dressed up with extra features like formatting, images, multimedia and links to other documents.

<u>**3 marks questions**</u>

1. What is HTML?

HTML stands for "Hyper Text Markup Language". This language is used for creating and displaying web pages using any web browser like Internet explorer, Netscape navigator, Firefox etc.

2. Define html tag?

•   HTML tags are keywords (tag names) surrounded by angle brackets like <html>

•   HTML tags normally come in pairs like and

•   The first tag in a pair is the start tag, the second tag is the end tag

•   The end tag is written like the start tag, with a forward slash before the tag name

•   Start and end tags are also called opening tags and closing tags

3. Define br tag?

This tag is used to break the text following the <br> and bought it to the next line. This has no closing tag. The general form of break tag is,

 Text to break </br>

4. Name the body tag attributes?

Body attributes	Uses of attributes
Background	This attributed is used to set a background image.
Bg color	This attributes is used to set a background color.
Text	This attributes is used to be set the color of the text to be displayed.
Vlink	This attributes is used to set the color for the visited Links.

5. Give the structure of a html document?

```
<html>
<head>
<title>  My first html program </title>
</head>
<body> I am an <b> Indian </b>
</body>
</html>
```

6. Explain how to insert images?

In HTML images are defined with the <img> tag. The <img> tag is empty, which means that it contains attributes only and it has no closing tag.

To display an Image on a page, you need to use the Src attribute. Src stands for "source". The value of the src attribute is the URL of the image you want to display on your page.

The syntax of defining an image:

<img src="url">

7. Write a HTML code for make a hyperlink of an image?

```
<html>
<body>
<a href="last page.html">
<img src="picture.gif">
</a>
</body>
</html>
```

8. What is CSS syntax?

CSS - Cascading style sheet. This is a technique used to add styles (font, color etc) to our web documents. The main objectives of CSS are to separate document content from its style of presentation.

Syntax: Selector {property: value}

9. What are the attributes of CSS background?

This property is used to control the background effect of an element or tag. The general from is,

Selector { attribute : value }

Where Selector – valid html elements such as body, p,h1 etc.

CSS Background: Important attribute and its values are:

Attributes	Value
Background color	Vaild color such as Red, Blue, Green etc
Background image	Image file-name
Background – position	Top left, top center center left, center right etc.

10. What is Inline Stylesheet?

Giving styles to each line in a html document separately using <style> tag is called inline style is not a CSS. This is because; the content and styles are mixed within the html document.

Example

```
<html>
<body>
<font style=color:red >  E publishing
</font>
</body>
```

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```
</html>
```

10 marks questions

1. Explain in detail about basic tags of HTML with examples.
2. Explain about creation of HTML file with examples
3. Explain with detail about font formatting HTML with their syntax.
4. Discuss about image handling in HTML with example.
5. Explain in detail about the types of style sheets in CSS with syntax.
6. Describe about any three the properties of CSS.

****

Unit – IV XML

4.1 Introduction about XML:

XML stands for **Extensible Markup Language**. It is a text-based markup language derived from **Standard Generalized Markup Language (SGML)**.

XML tags identify the data and are used to store and organize the data, rather than specifying how to display it like HTML tags, which are used to display the data. XML is not going to replace HTML in the near future, but it introduces new possibilities by adopting many successful features of HTML.

There are three important characteristics of XML that make it useful in a variety of systems and solutions:

- **XML is extensible:** XML allows you to create your own self-descriptive tags, or language, that suits your application.

- **XML carries the data, does not present it:** XML allows you to store the data irrespective of how it will be presented.

- **XML is a public standard:** XML was developed by an organization called the World Wide Web Consortium (W3C) and is available as an open standard.

What is Markup?

XML is a markup language that defines set of rules for encoding documents in a format that is both human-readable and machine-readable. ***Markup is information added to a document that enhances its meaning in certain ways, in that it identifies the parts and how they relate to each other.*** More specifically, a markup language is a set of symbols that can be placed in the text of a document to demarcate and label the parts of that document.

Following example shows how XML markup looks, when embedded in a piece of text:

```
<message>
    <text>Hello, world!</text>
</message>
```

This snippet includes the markup symbols, or the tags such as <message>...</message> and <text>... </text>. The tags <message> and </message> mark the start and the end of the XML code fragment. The tags <text> and </text> surround the text Hello, world!.

What is XML?

- XML stands for EXtensible Markup Language

- XML is a markup language much like HTML

- XML was designed to carry data, not to display data

- XML tags are not predefined. You must define your own tags

- XML is designed to be self-descriptive

- XML is a W3C Recommendation

XML Data:

XML doesn't change the data we use, it merely gives us a way to store and describe it more easily. To store items we can express In XML as a collection of data. It is this standard way of defining data and storing data that empowers XML. This means over time as programmers, we will use XML to replace other methods of storing and using data.

Design of XML

A short list of XML usage says it all:

- XML can work behind the scene to simplify the creation of HTML documents for large web sites.

- XML can be used to exchange the information between organizations and systems.

- XML can be used for offloading and reloading of databases.

- XML can be used to store and arrange the data, which can customize your data handling needs.

- XML can easily be merged with style sheets to create almost any desired output.

- Virtually, any type of data can be expressed as an XML document.

Features of XML:

- XML markup gives data a logical structure that is both easily human – readable and easily processed by applications.

- XML markup may resemble other markup languages, such as HTML. The difference is an application using XML can verify a document's structure before using the document's content, via either a **document type definition** (DTD), or a schema. If an XML document is malformed then an application result.

- An XML document will be universally accepted by any XNL complaints parser or application. Porting an XML document between operating systems or projects will not require a syntax change for compatibility.

- XML is syntax for defining data and meta – data. It allowed you to sled describe and sterilize information in universal method. This is one of the most important features of be XML specification.

Main difference between XML & HTML:

SL.NO	HTML	XML
1.	Html files are used to display data.	Xml used to hold and describe data.
2.	The tags used in html are defined preciously. So user can use only the predefined tags.	User are defined their own tags and their document structure.
3.	Data are stored inside the Html	Data are stored in separate Xml

	file.	file.	
4.	Html tags are not case sensitive.	Xml tags are case sensitive.	
5.	Xml can be used inside Html.	Html cannot be used inside Xml.	

Advantages of XML

1. It support wide variety of complex data, and ensuring data integrity a structured documents.
2. It supports any type of document structuring (arranging) required by the user.
3. It supports mode complex and application specific problems.
4. It support to search, sort and retrieve, format, the documents.
5. It is freely available in internet (open source).
6. User can do any type of manipulations on the XML data.
7. XML Separates Data from HTML.
8. XML Simplifies Data Sharing, Data Transport and Platform changes
9. XML Makes Your Data More Available.

4.2 Basic XML tags syntax:

XML – Syntax

Following is a complete XML document:
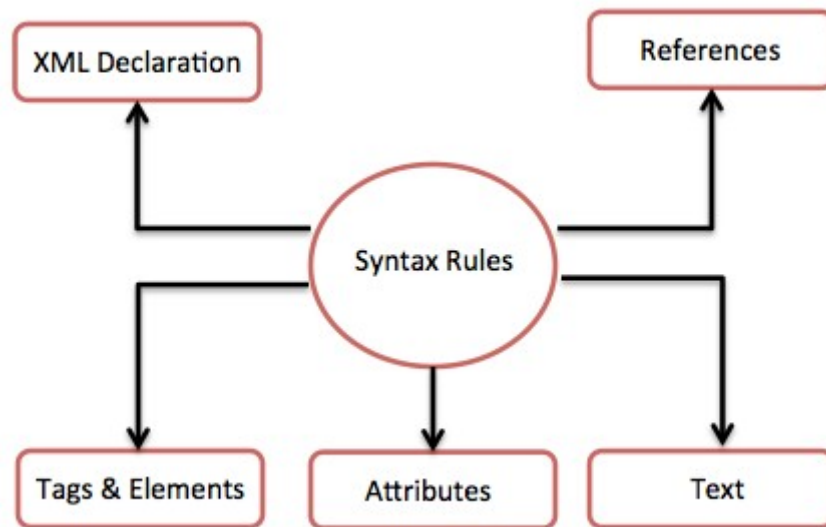
```
<?xml version="1.0"?>
<contact-info>
<name>Tanmay Patil</name>
<company>TutorialsPoint</company>
<phone>(011) 123-4567</phone>
</contact-info>
```

You can notice there are two kinds of information in the above example:

- markup, like <contact-info> and
- the text, or the character data, Tutorials Point and (040) 123-4567.

The following diagram depicts the syntax rules to write different types of markup and text in an XML document.

Let us see each component of the above diagram in detail:

XML Declaration

The XML document can optionally have an XML declaration. It is written as below:

```
<?xml version="1.0" encoding="UTF-8"?>
```

Where version is the XML version and encoding specifies the character encoding used in the document.

Syntax Rules for XML declaration

- The XML declaration is case sensitive and must begin with "<?xml>" where "xml" is written in lower-case.

- If document contains XML declaration, then it strictly needs to be the first statement of the XML document.

- The XML declaration strictly needs be the first statement in the XML document.

- An HTTP protocol can override the value of encoding that you put in the XML declaration.

XML - Documents

An XML document is a basic unit of XML information composed of elements and other markup in an orderly package. An XML document can contains wide variety of data. For example, database of numbers, numbers representing molecular structure or a mathematical equation.

example

A simple document is given in the following example:

```
<?xml version="1.0"?>
<contact-info>
    <name>Tanmay Patil</name>
    <company>TutorialsPoint</company>
    <phone>(011) 123-4567</phone>
</contact-info>
```

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The following image depicts the parts of XML document.

```
<?xml version="1.0"?>                    →  Document Prolog
<contact-info>
    <name>Tanmay Patil</name>
    <company>TutorialsPoint</company>     →  Document Elements
    <phone>(011) 123-4567</phone>
</contact-info>
```

Document Prolog Section

The document prolog comes at the top of the document, before the root element. This section contains:

- XML declaration
- Document type declaration

Document Elements Section

Document Elements are the building blocks of XML. These divide the document into a hierarchy of sections, each serving a specific purpose. You can separate a document into multiple sections so that they can be rendered differently, or used by a search engine. The elements can be containers, with a combination of text and other elements.

XML Tag:

XML tags form the foundation of XML. They define the scope of an element in the XML. They can also be used to insert comments, declare settings required for parsing the environment and to insert special instructions.

Start Tag

The beginning of every non-empty XML element is marked by a start-tag. An example of start-tag is:
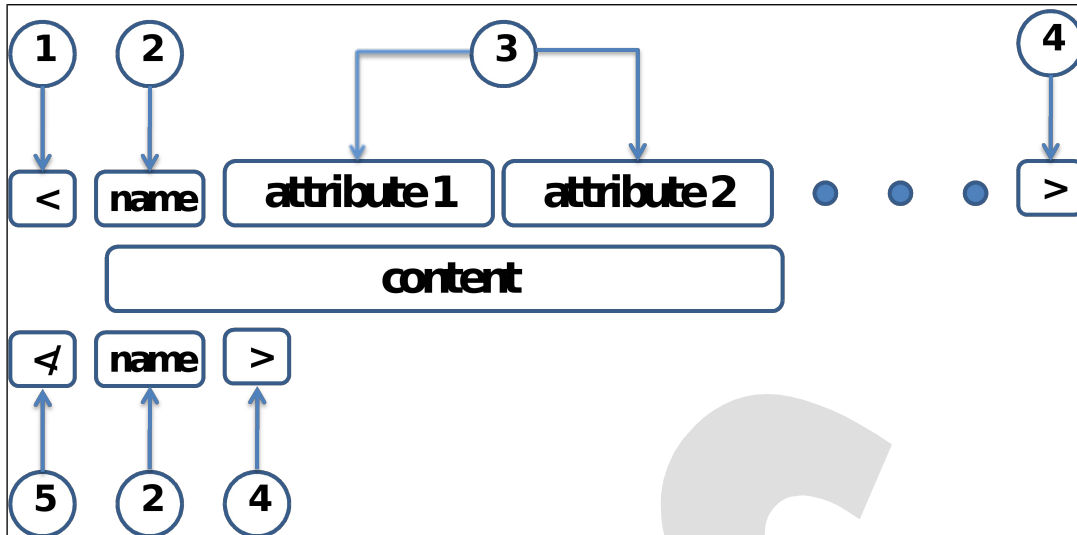
```
<address>
```

End Tag

Every element that has a start tag should end with an end-tag. An example of end-tag is:
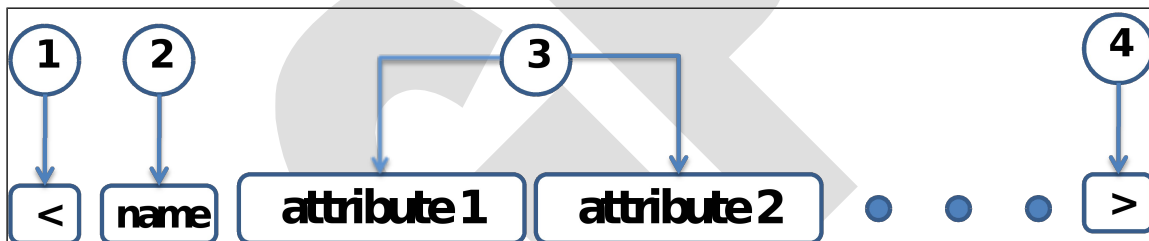
```
</address>
```

Note that the end tags include a solidus ("/") before the name of an element.

The figure shows the syntax for a container element. It begins with a start tag consisting of an angle bracket (1) followed by a

Name (2) the start tag may contain some attributes (3) separated by white space, and it ends with a closing angle bracket (4). After the start tag is the element's content and then an end tag. The end tag consists of an opening angle bracket and a slash (5), the element's name again (2), and a closing bracket (4). The name in the end tag must match the one in the start tag exactly.

An empty element is very similar, as seen in figure it starts with an angle bracket delimiter (1), and contains a name (2) and a number of attributes (3). It is closed with a slash and a closing angle bracket (4). It has no content, so there is no need for an end tag.

4.3 Creating XML document

XML Tree

XML documents form a tree structure that starts at "the root" and branches to "the leaves".

XML documents Must Have a ***Root Element***. XML documents must contain one element that is the parent of all other elements. This element is called the root element.

```
<root>
<child>
<subchild>....</subchild>
</child>
</root>
```
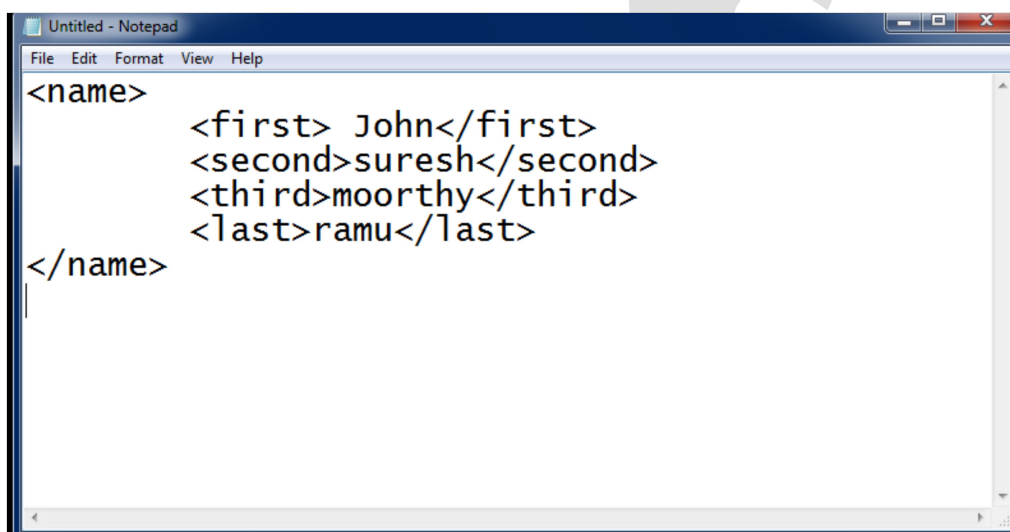
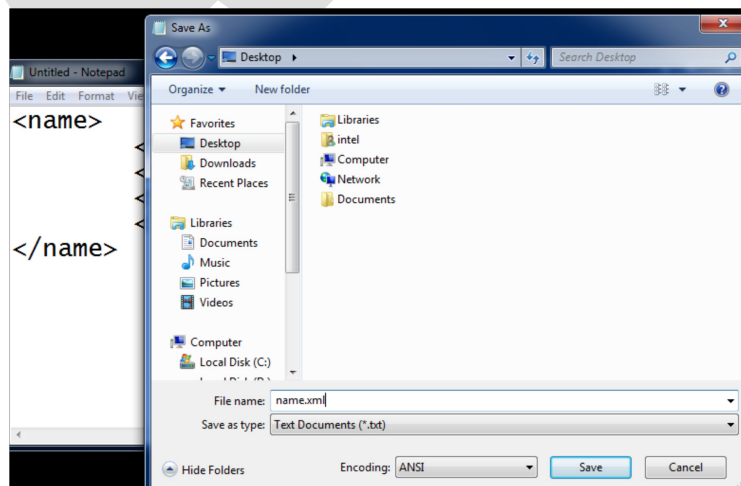The following steps are followed to create a XML file.
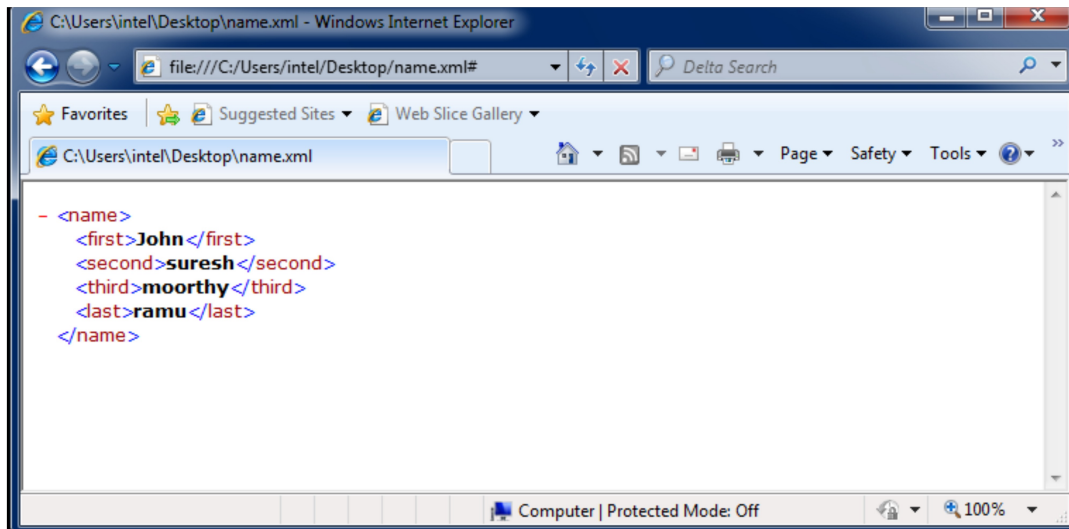
Step 1:

Open notepad and type the following xml code

```
<name>
        <first> John</first>
        <second>suresh</second>
        <third>moorthy</third>
        <last>ramu</last>
</name>
```


Step 2:

Save the document to your hard drives as name.xml. If you are using windows XP, be sure to change the save as type as type drop-down option to all files (otherwise, notepad will save the document with a .text extension, causing your file to be named name.xml.txt) you might also want to change the encoding dropdown to Unicode, as shown in figure.

Step 3:

How it works

Although your xml file has no information concerning display, the browser formats it nicely for you, with your information in bold and your markup displayed in different colors. In addition, <name> is collapsible, like your file folders is windows explorer. Try clicking on the minus sign (-) next to <name> in the browser window. It should then look kike figure.

For large XML documents, where you only need to concentrate in a smaller subset of the data, this feature can be quite handy. This is one reason why internet explorer can be so helpful when authoring XML; it has a default stylesheet built in, which applies this default formatting to any XML document.

An example XML document

```
<?xml version="1.0" ="ISO-8859-1"?>
<note>
<to> Raja</to>
<from>kumar</from>
<heading>reminder</heading>
<body>please submit the purchase details today
<body>
</note>
```

The first line in the document – the **XML declaration**-defines the xml version and the character encoding used in the document. In this case the document conforms to the 1.0 specification of XML and uses the ISO-8859-1 (Latin-!/west European) character set.

The next line describes the root element of the document (like it was saying: "this document is a note):

```
<note>
```

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The next 4 lines describe 4 child elements of the root (to, from, heading, and body):

```
<to>raja </to>
<from>kumar</from>
<heading>reminder</heading>
<body>
```

Please submit the purchase details to data

```
</body>
```

And finally the last defines the end of the root element

```
</note>
```

All XML elements must have a closing tag. With XML, it is illegal to omit the closing tag. In HTML some elements do not have to have a closing tag.

Rules and regulations of XML document:

Well formed XL document is defined as a XML document developed by following the syntax rules of XML. The following are the important rules to the followed to write well formed XML documents.

a. Start tags and end tags must match

In XML, it is illegal to omit the closing tag. All elements must have a closing tag:

<p>This is a paragraph.</p>

Example

```
<book>…</book>
```

b. XML tags are case sensitive

XML tags are case sensitive. The tag <Letter> is different from the tag <letter>.

Opening and closing tags must be written with the same case:

```
<Message>This is incorrect</message>
<message>This is correct</message>
```

Example

```
<BOOK> …</book> it is not valid
<book> … </book> it is valid
```

c. Elements (tags) cannot overlap.

In XML, all elements must be properly nested within each other:

<i>This text is bold and italic</i>

Example

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```
<book>
<title> maths</book>
</title>
```

It is not valid because book and title elements overlaps.

d. Each XML document must have a unique root element.

XML documents must contain one element that is the parent of all other elements. This element is called the **root element.**

Example:

```
<root>
  <child>
    <subchild>.....</subchild>
  </child>
</root>
```

e. XML Attribute Values Must be Quoted

In XML, the attribute values must always be quoted.

Study the two XML documents below. The first one is incorrect, the second is correct:

```
<note date=12/11/2007> it is not valid


<note date="12/11/2007"> it is valid
```

Example

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>

  <book category="cooking">
    <title lang="en">Everyday Italian</title>
    <author>Giada De Laurentiis</author>
    <year>2005</year>
    <price>30.00</price>
  </book>

  <book category="children">
    <title lang="en">Harry Potter</title>
    <author>J K. Rowling</author>
    <year>2005</year>
    <price>29.99</price>
  </book>
```

```
<book category="web">
  <title lang="en">XQuery Kick Start</title>
  <author>James McGovern</author>
  <author>Per Bothner</author>
  <author>Kurt Cagle</author>
  <author>James Linn</author>
  <author>Vaidyanathan Nagarajan</author>
  <year>2003</year>
  <price>49.99</price>
</book>

<book category="web" cover="paperback">
  <title lang="en">Learning XML</title>
  <author>Erik T. Ray</author>
  <year>2003</year>
  <price>39.95</price>
</book>

</bookstore>
```

The root element in the example is <bookstore>. All <book> elements in the document are contained within <bookstore>.

The <book> element has 4 children: <title>,< author>, <year>, <price>.

The following are few professional XML editors

1. Adobe Frame Maker 7.0
2. Arbortext Adept.
3. Corel XMetal.
4. Emacs/Psgml.
5. Morphon XMLEditor.
6. XML spy

4.4 ADVANDCE XML CODING:

4.4.1 C DATA

C DATA is an acronym for *"character data",* which just means "not markup". Essentially, you're telling the parser that this section of the document contains no markup and should be treated as regular text. All text in an XML document will be parsed by the parser. But text inside a CDATA section will be ignored by the parsed by the XML parser.

The term CDATA is used about text data that should not be parsed by the XML parser. Characters like "<" and "&" are illegal in XML elements.

"<" will generate an error because the parser interprets it as the start of a new element.

"&" will generate an error because the parser interprets it as the start of an character entity.

Some text, like JavaScript code, contains a lot of "<" or "&" characters. To avoid errors script code can be defined as CDATA.

Everything inside a CDATA section is ignored by the parser.

A CDATA section starts with **"<![CDATA["** and ends with **"]]>":**

A CDATA section starts with "<! [CDATA["and ends with "]]>"

```
<script>
<![CDATA[function match(a,b)
{
if (a < b && a < 0) then
  {
  return 1;
  }
else
  {
  return 0;
  }
}
]]>
</script>
```

In the example above, everything inside the CDATA section is ignored by the parser.

A CDATA section cannot contain the string "]]>". Nested CDATA sections are not allowed. The "]]>" that makes the end of the CDATA section cannot contain spaces or line breaks.

not allowed character	replacement-entity	character description
<	<	less than
>	>	greater than
&	&	ampersand
'	'	apostrophe
"	"	quotation mark

4.4.2 XML Encoding

Encoding is the process of converting unicode characters into their equivalent binary representation. When the XML processor reads an XML document, it encodes the document depending on the type of encoding. Hence, we need to specify the type of encoding in the XML declaration.

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XML documents can contain non ASCII characters, like Norwegian are æ, Ø, å or French ê, è, é. To avoid errors, specify the XML encoding, or save XML files as Unicode.

Encoding Types

There are mainly two types of encoding:

- UTF-8
- UTF-16

UTF stands for UCS Transformation Format, and UCS itself means Universal Character Set. The number 8 or 16 refers to the number of bits used to represent a character. They are either 8(one byte) or 16(two bytes). For the documents without encoding information, UTF-8 is set by default.

Syntax

Encoding type is included in the prolog section of the XML document.

The syntax for UTF-8 encoding is as below:

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
```

Syntax for UTF-16 encoding

```
<?xml version="1.0" encoding="UTF-16" standalone="no" ?>
```

Example

Following example shows declaration of encoding:

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>

<contact-info>

    <name>Tanmay Patil</name>

    <company>TutorialsPoint</company>

    <phone>(011) 123-4567</phone>

</contact-info>
```

In the above example encoding="UTF-8", specifies that 8-bits are used to represent the characters. To represent 16-bit characters, UTF-16 encoding can be used.

The XML files encoded with UTF-8 tend to be smaller in size than those encoded with UTF-16 format.

Experiment with different encodings:

- `<?xml version="1.0" encoding="us-ascii"?>`
- `<?xml version="1.0" encoding="windows-1252"?>`
- `<?xml version="1.0" encoding="ISO-8859-1"?>`
- `<?xml version="1.0" encoding="UTF-8"?>`
- `<?xml version="1.0" encoding="UTF-16"?>`

XML Code must:

- Always use the encoding attribute
- Use an editor that supports encoding
- Make sure you know what encoding the editor uses
- Use the same encoding in your encoding attribute

4.4.3 XML name spaces

Name spaces are method used to avoid element name conflicts. Element name conflicts occur when same elements names are in an xml document.

A Namespace is a set of unique names. Namespace is a mechanisms by which element and attribute name can be assigned to group. The Namespace is identified by URI(Uniform Resource Identifiers).

Name Conflicts

In XML, element names are defined by the developer. This often results in a conflict when trying to mix XML documents from different XML applications.

This XML carries HTML table information:

```
<table>
  <tr>
    <td>Apples</td>
    <td>Bananas</td>
  </tr>
</table>
```

This XML carries information about a table (a piece of furniture):

```
<table>
  <name>African Coffee Table</name>
  <width>80</width>
  <length>120</length>
</table>
```

If these XML fragments were added together, there would be a name conflict. Both contain a <table> element, but the elements have different content and meaning.

4.4.4 Solving the name conflict using a prefix:

Name conflicts in XML can easily be avoided using a name prefix.

This XML carries information about an HTML table, and a piece of furniture:

```
<h:table>
  <h:tr>
    <h:td>Apples</h:td>
    <h:td>Bananas</h:td>
  </h:tr>
</h:table>


<f:table>
  <f:name>African Coffee Table</f:name>
  <f:width>80</f:width>
  <f:length>120</f:length>
</f:table>
```

In the example above, there will be no conflict because the two <table> elements have different names.

4.4.5 Namespace Declaration

A Namspace is declared using reserved attributes. Such an attribute name must either be xmlns or begin with xmlns: shown as below:

```
<element xmlns:name="URL">
```

Syntax

- The Namespace starts with the keyword xmlns.

- The word name is the Namespace prefix.

- The URL is the Namespace identifier.

Example

Namespace affects only a limited area in the document. An element containing the declaration and all of its descendants are in the scope of the Namespace. Following is a simple example of XML Namespace:

```
<?xml version="1.0" encoding="UTF-8"?>

<cont:contact xmlns:cont="www.tutorialspoint.com/profile">

    <cont:name>Tanmay Patil</cont:name>

    <cont:company>TutorialsPoint</cont:company>

    <cont:phone>(011) 123-4567</cont:phone>

</cont:contact>
```

Here, the Namespace prefix is cont, and the Namespace identifier (URI) as www.tutorialspoint.com/profile. This means, the element names and attribute names with the cont prefix (including the contact element), all belong to the www.tutorialspoint.com/profile namespace.

4.4.6 Default Namesplaces

Defining a default namespace for an element saves us from using prefixes in all the child elements. It has the following syntax:

xmlns="namespaceURI"

This XML carries HTML table information:

```
<table xmlns="http://www.w3.org/">

  <tr>

    <td>Apples</td>

    <td>Bananas</td>

  </tr>

</table>
```

This XML carries information about a piece of furniture:

```
<table xmlns="http://www.w3schools.com/">

  <name>African Coffee Table</name>

  <width>80</width>

  <length>120</length>
```

```
</table>
```

Example: XML News

XMLNews is a specification for exchanging news and other information.

Using such a standard makes it easier for both news producers and news consumers to produce, receive, and archive any kind of news information across different hardware, software, and programming languages.

An example XMLNews document:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<nitf>
  <head>
    <title>India Earthquake</title>
  </head>
  <body>
    <headline>
      <hl1>143 Dead in India Earthquake</hl1>
    </headline>
    <byline>
      <bytag>By Raman, The Hindu </bytag>
    </byline>
    <dateline>
      <location>Delhi, India</location>
      <date>Monday January 25 1999 7:28 ET</date>
    </dateline>
  </body>
</nitf>
```

Unit IV

1 marks questions

1. What does XML stand for?

Extensible markup language

2. What is the correct syntax of the declaration which defines the XML version?

```
<?xml version ="1.0"?>
```

3. What does DTD stand for?

Document Type Definition

4. What does XSL stand for?

EXtensible Stylesheet Language

5. Define XML.

XML allows you to create your own self-descriptive tags, or language, that suits your application. XML is a markup language that defines set of rules for encoding documents in a format that is both human-readable and machine-readable.

6. Define markup.

XML contains, shapes, labels, structures, and protects information. It does this with symbols embedded in the text, called *markup*.

7. What is mean by name conflicts.

In XML, element names are defined by the developer. This often results in a conflict when trying to mix XML documents from different XML applications.

8. Write XML basic tag.

```
<root>
     <child>
     <subchild>....</subchild>
     </child>
</root>
```

9. Write down any two professional XML editors.

• Adobe Frame Maker 7.0

• Corel XMetal.

10. Define CDATA?

CDATA - character data. All text in an XML document will be parsed by the parser. But text inside a CDATA section will be ignored by the parsed by the XML parser.

11. What is meant by XML namespace?

Name spaces are method used to avoid element name conflicts. Element name conflicts occur when same elements names are in an xml document.

12. What are the characters illegal in xml coding?

<, >, &, !

6 marks questions

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1.   What are the advantages of XML?

- It support wide variety of complex data, and ensuring data integrity a structured documents.

- It supports any type of document structuring (arranging) required by the user.

- It supports mode complex and application specific problems.

2.   What are the different between the XML and HTML?

Html files are used to display data. Xml used to hold and describe data.

Html tags are not case sensitive. Xml tags are case sensitive.

3.   Define XML data.

To store items we can express In XML as a collection of data. It is this standard way of defining data and storing data that empowers XML. we will use XML to replace other methods of storing and using data.What is mean by name conflicts.

In XML, element names are defined by the developer. This often results in a conflict when trying to mix XML documents from different XML applications.

4.   What are the basic rules of XML.

- XML tags are *case sensitive*

- XML Elements must is properly nested.

- All Xml elements must have a *Closing Tag*

5.   How will you declare the name space in XML?

A Namspace is declared using reserved attributes. Such an attribute name must either be xmlns or begin with xmlns: shown as below:

```
<element xmlns:name="URL">
```

Syntax

- The Namespace starts with the keyword xmlns.

- The word name is the Namespace prefix.

- The URL is the Namespace identifier.

6.   Define XML Tree.

XML documents form a tree structure that starts at "the root" and branches to "the   leaves".

```
        <root>
<child>
<subchild>....</subchild>
</child>
</root>
```

7.   Define XML Syntax.

Following is a complete XML document:

```
<?xml version="1.0"?>
<contact-info>
<name>Tanmay Patil</name>
```

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```
<company>TutorialsPoint</company>
<phone>(011) 123-4567</phone>
</contact-info>
```

You can notice there are two kinds of information in the above example:

- markup, like <contact-info> and
- the text, or the character data, Tutorials Point and (040) 123-4567.

10 marks questions

1. (i) Explain in detail about basic principle of XML Tag.

    (ii) Write about difference between XML and HTML.

2. Explain about the XML Document and Write about XML declaration with examples.

3. Discuss about steps involved for creation of XML document and rules and regulations of XML document.

4. Explain in detail about advanced XML Coding.

5. Explain in detail about XML namespace with examples.

6. Write short notes on 1) CDATA 2) XML encoding

****

Unit V – Web to Print

5.1.1 Introduction about web to print:

Web-to-print, also known as Web2Print, remote publishing or print e-commerce is a broad term that refers to the practice of doing print business using web sites. Companies and software solutions that deal in web-to-print often bleed into more standard e-commerce and online services like hosting, website design, and cross medial marketing.

The growing popularity of the internet and the World Wide Web has opened up opportunities for commercial printers to communicate with their partners and customers to do things like submit print jobs, do online prepress reviews/previews, design things like postcards directly on a website using rich user interfaces, direct cross media marketing and offer services such as variable data printing, photo printing, booklets, marketing campaigns, etc.

Digital content online and Print production:

- Web-to-print sites are available for commercial users or to the general public. A common offering from print houses is public or private online storefronts or catalogues.
- Web-to-print increasingly calls for a Portable Document Format (PDF) workflow environment with output provided by digital printing; although there is certainly no requirement that fulfillment be accomplished using digital production equipment; web-to-print is also used today by printers with both offset and digital production facilities.

- Prepress reviews can be done online, allowing a print house, a client, and possibly a graphic designer to create, edit, and approve computer-based online artwork.

- Some web-to-print sites offer online print products that replace editing tools like Adobe InDesign where buyers can author work and alter the typeface, copy, images, and layout. These products often include a library of templates for product types, such as post cards, posters, flyers etc.

- It is frequently possible for clients to upload their own unique content for automated print production. This may be termed Ad Hoc printing. When a digital press is used for the final output, the template usually is transformed into a PDF file that serves as the 'master plate' for the digital press. In more traditional printing processes, like offset printing, the template is used to create a plate or plates that are used to produce the final printed product.

- Web-to-print sites often provide approval mechanism so that managers can approve print requests by their employees.

- Materials produced by a web-to-print process include business cards, brochures, and stationery, among other printed matter, that can be printed in full color or in black and white on various papers and on various presses.

- Web-to-print systems are also expanding to handle personalization and distribution of other marketing materials such as presentations, seminars, logo items, and even email and other electronic media. This change is driven by enterprise clients seeking a single repository/tool to manage all marketing efforts including print.

Web-to-Print: What is it and how does it work?

Web-to-print is a centralized marketing solution that acts as an online, custom-branded portal making it easy to manage your print collateral any time, any place, anywhere in the world.

The major benefits of **web-to-print** are providing a company the power to centralize and disperse marketing materials efficiently, while controlling branding, quality and costs.
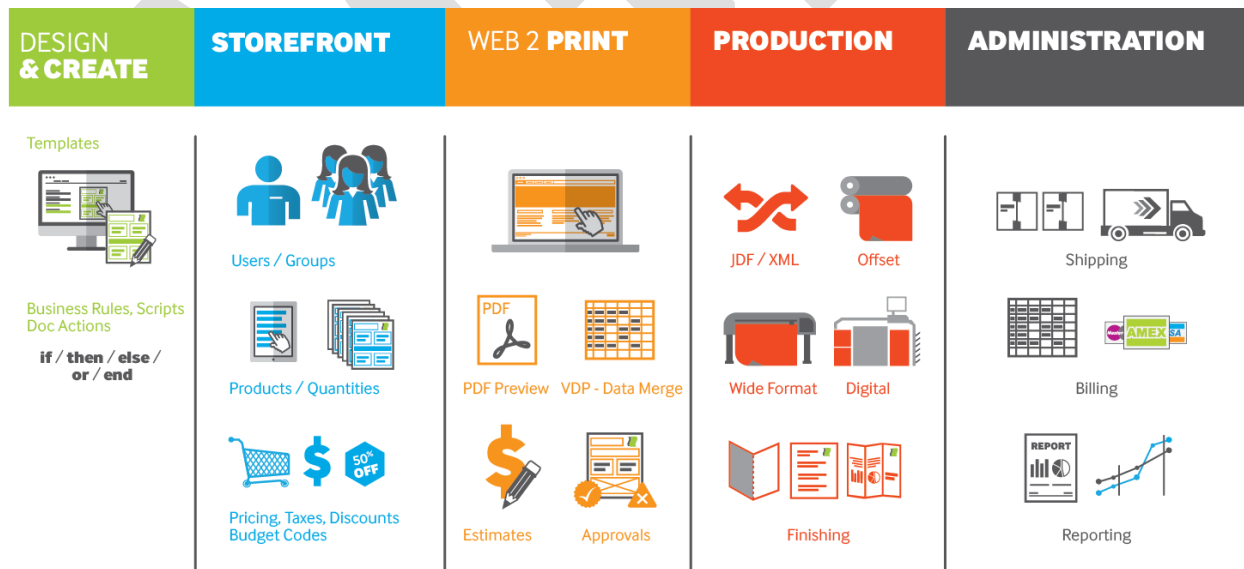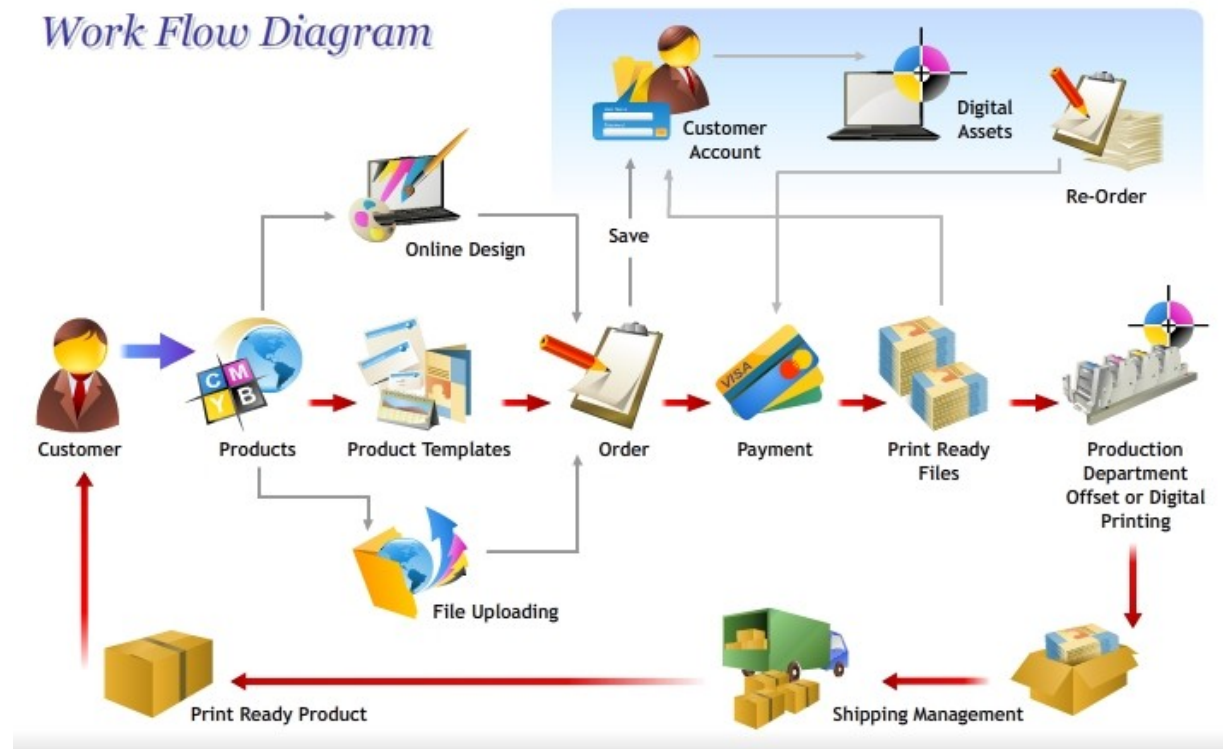

Benefits of Web-to-Print:

1. Brand Consistency
2. Customized Content
3. Digital Asset Management

4. Control of Time Save Money and Add to Bottomline

5. Budget Control & Inventory Control

6. Approval Process

Workflow of Web to print:

5.1.2 Merits and demerits of web to print:

Advantages to the use of a web-to-print system include,

1. Access a private or public online catalog where last-minute changes to a prepress template are possible.
2. Client can approve the materials without the need for a face-to-face meeting with the printer.
3. Templates allow print customers to control **brand management** and content.
4. Portions of a constantly used template can remain consistent throughout a series of print projects but allow for controlled customization for branch offices are franchisees.
5. Shipping, purchasing and personalized billing integration.
6. Reduce inventory and administrative costs.

The disadvantage to this system as,

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1. It exists today is that small- to mid-sized print houses and print brokers are limited in their access to software and server system solutions for a web-to-print service offering to clients.

2. Most proprietary and trade name software that was developed with web-to-print projects in mind remains prohibitively expensive for this sector.

3. Additionally, these systems often require the use of digital systems that only a larger print house would maintain.

5.2 Network Concepts and Interfaces:

5.2.1 Network Protocols and TCP/IP:

      Network Interface: A network interface can refer to any kind of software interface to networking hardware. For instance, if you have two network cards in your computer, you can control and configure each network interface associated with them individually.

      Interfaces are networking communication points for your computer. Each interface is associated with a physical or virtual networking device.

- **LAN:** LAN stands for "local area network". It refers to a network or a portion of a network that is not publicly accessible to the greater internet. A home or office network is an example of a LAN.

- **WAN:** WAN stands for "wide area network". It means a network that is much more extensive than a LAN. While WAN is the relevant term to use to describe large, dispersed networks in general, it is usually meant to mean the internet, as a whole.

If an interface is said to be connected to the WAN, it is generally assumed that it is reachable through the internet.
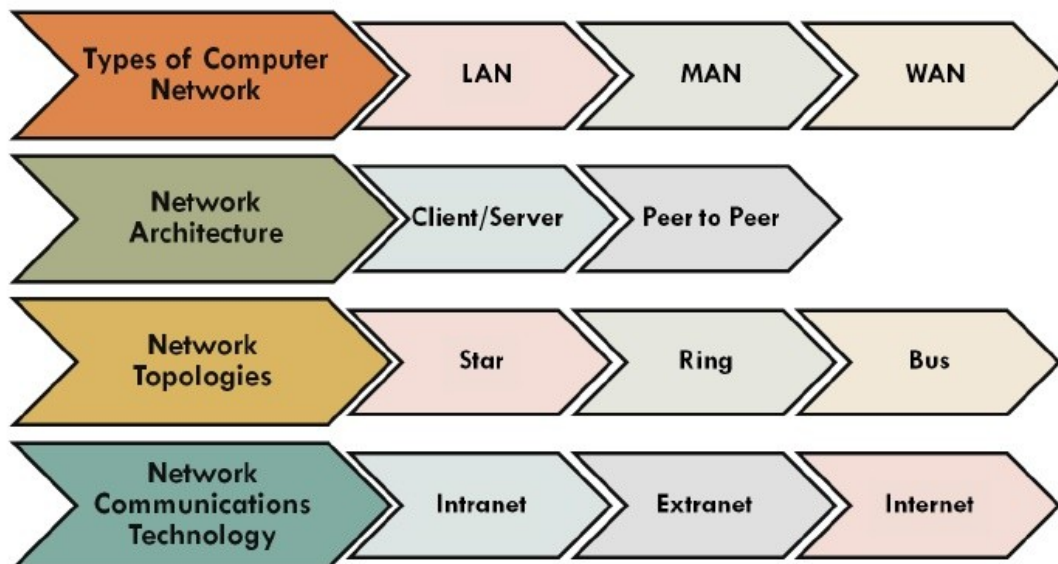
Protocol: A protocol is a set of rules and standards that basically define a language that devices can use to communicate. There are a great number of protocols in use extensively in networking, and they are often implemented in different layers.

TCP/P

- TCP/IP, Transmission Control Protocol/Internet Protocol, is a suite of communications protocols used to interconnect network devices on the Internet.

- Transmission Control Protocol (TCP) and Internet Protocol (IP) are two distinct computer network protocols.

- A protocol is an agreed-upon set of procedures and rules.

- When two computers follow the same protocols—the same set of rules—they can understand each other and exchange data.

- TCP/IP implements layers of protocol stacks, and each layer provides a well-defined network services to the upper layer protocol.

- TCP and IP are the two protocols used by TCP/IP, as well as the (higher) application, (lower) data link and (lower) physical layer protocols.
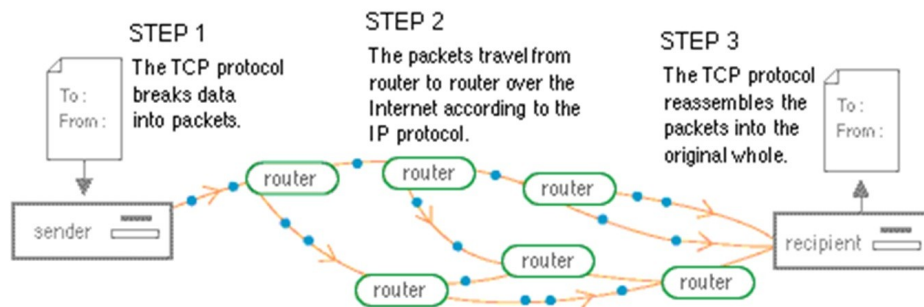
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How TCP/IP Works

Figure 2. How data travels over the Net.

HTTP

- HTTP stands for hypertext transfer protocol. It is a protocol defined in the application layer that forms the basis for communication on the web.

- HTTP defines a number of functions that tell the remote system what you are requesting.

FTP

- FTP stands for file transfer protocol. It is also in the application layer and provides a way of transferring complete files from one host to another.

- It is inherently insecure, so it is not recommended for any externally facing network unless it is implemented as a public, download-only resource.

5.2.2 Client/Server systems

The client-server model is a distributed communication framework of network processes among service requestors, clients and service providers. The client-server connection is established through a network or the Internet.

The client-server model is a core network computing concept also building functionality for email exchange and Web/database access. Web technologies and protocols built around the client-server model are:

- Hypertext Transfer Protocol (HTTP)

- Domain Name System (DNS)

- Simple Mail Transfer Protocol (SMTP)

- Telnet
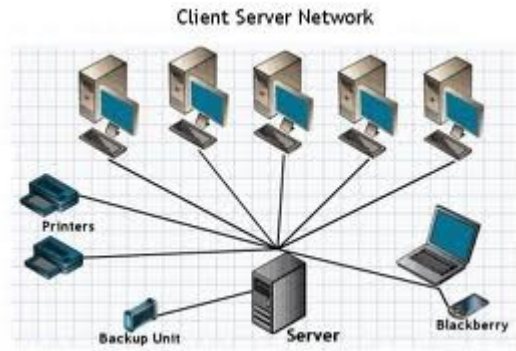
Clients include Web browsers, chat applications, and email software, among others. Servers include Web, database, application, chat and email, etc.
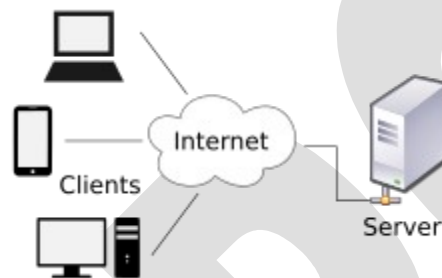

5.2.3 Three typical forms of network connectivity:

- ▪ ***Stand-alone networks.*** Some networks are limited to specific departments or fields (accounting, time recording, prepress, etc.). The interaction with other departments/fields or companies is not carried out via the network.

- ▪ ***Internal networking****.* The networking of departments/ areas involved in the manufacturing process provides the means for a digital data transmission within a corporation. This can contribute to a more effective cooperation within the corporation and speed up the entire manufacturing process.

- ▪ ***External networking.*** The third level of networking includes a digital data flow for the entire workflow. It involves not only all the departments/areas participating in the production, but also includes all the workstations from customer enquiry to delivery to the customer. Therefore, this type of network connectivity not only covers the departments involved in the production, but also the customers themselves and all the administrative departments in the external companies and partners involved.

5.3. Classification of Network:

1. Internet,
2. Intranet,
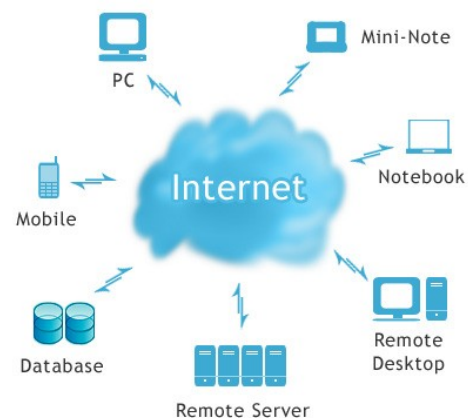3. Extranet and
4. Broad Band Networks.
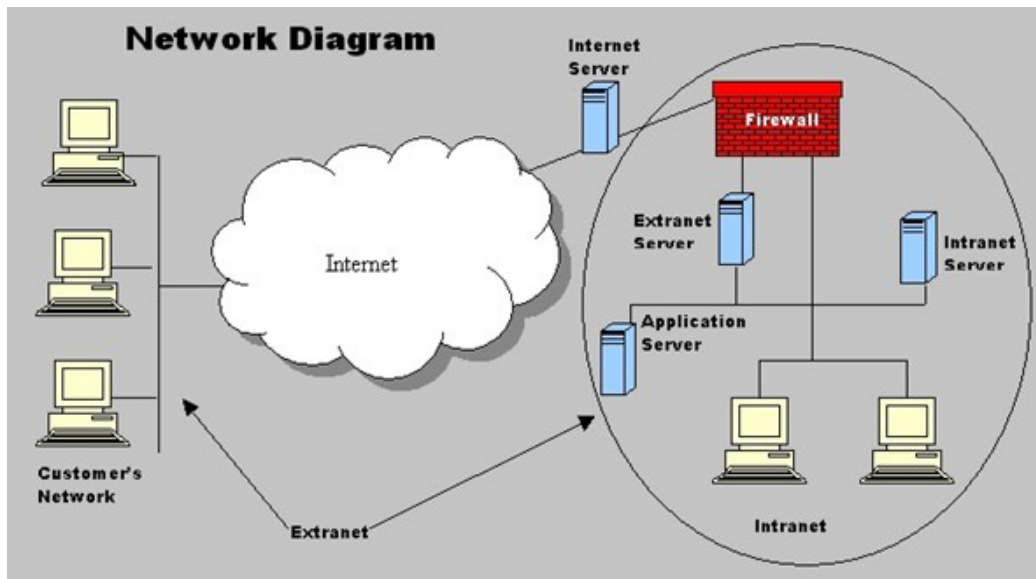
1) Intranet

- An intranet network is only available to a small group of people.

- Intranets are mainly used within businesses and organizations to provide access to files and applications among networked computers and servers.

- Intranets may or may not have access to the Internet.

- If an intranet does connect to the Internet, a firewall is used to prevent outside access to the intranet.

- The purpose is to allow people within the same company to share information over a local area network.

- It is sometimes referred to as a private Internet.

- Intranet is setup and controlled by an organization, to ensure secure and uninterrupted connection between members to exchange information more efficiently.
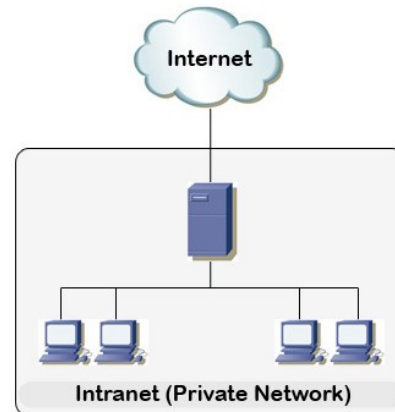
2) Internet

- The Internet is a network that is available to anyone with an Internet-connected device.

- It is a massive collection of networks sharing information publicly in the form of interlinked Web pages.

- Internet Protocol defines a site's unique location which most users see as a domain name or URL.

- The network is literally world-wide and is often referred to as the world wide web.

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- Internet is a "Public network" with thousands of computers (servers and clients) interconnected to share information.

- Clusters of computer networks are interconnected to build the network spanning all over the world.

3) Extranet

- An extranet is similar to an intranet, but is accessible via a Web portal.

- An extranet may be accessed from anywhere if the user has a valid user name and password.

- The purpose of this type of network is to allow collaboration and sharing of resources not only in-house but with a select group of outside users.

- For instance, businesses will use an extranet to allow customers to log in to provide input on projects.

- Another example is using a virtual private network to allow employees to log in to the network when they're are not in the office.

- Extranet is part of an Intranet, which is also categorized as a "Private Network".

- It is controlled and managed by an organization, to provide secure access to Intranet from the outside world.

- Many business organizations need their business partners and customers to connect to Intranet to enhance communication and efficiency.
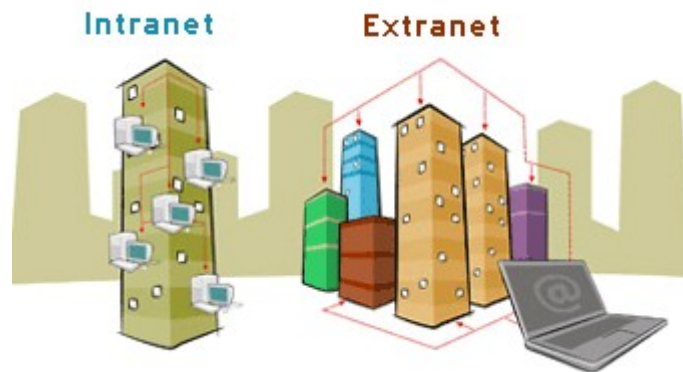
4) Broad Band Networks

- Broadband refers to telecommunication in which a wide band of frequencies is available to transmit information.

- Because a wide band of frequencies is available, information can be multiplexed and sent on many different frequencies or channels within the band concurrently, allowing more information to be transmitted in a given amount of time.

- It is generally agreed that Digital Subscriber Line (DSL) and cable TV are broadband services in the downstream direction.

- Broadband technology allows for high-speed transmission of voice, video and data over networks and ICT applications.

- The introduction of broadband technologies, community antennas, optical fibre, satellite and fixed and mobile wireless has enabled traditional and new forms of telecommunications to become a reality throughout the world.

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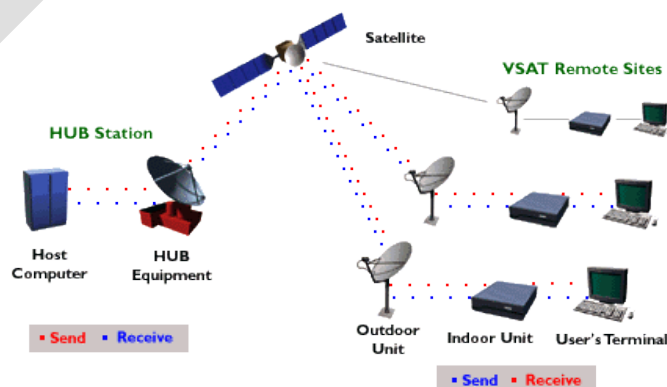
5.4.1 Production Management/Monitoring Systems – Purpose, Application:

In printing companies with large printing volumes, *production management* and *monitoring the jobs* play a vital role in ensuring punctual delivery and cost-effective production. Most printing companies do not have a detailed overview of the jobs in production, and in particular have no real-time update of their status. The only way to find out is usually to "walk around the production" or to "phone around in all the departments," in order to form an opinion about the progress of the job.

For example, many companies organize **daily 30-minute production meetings**, during which the staff discusses and defines the outstanding jobs, what jobs are in production, and where. Even when planning the production of a job on short notice, there are still several changes during the daily production. Jobs that have been overlooked and urgent jobs often have to be slipped in between.

The newspaper printing industry, where up-to-date information is a must, requires an absolutely *reliable production system on a daily basis*. Besides the necessity to deliver the newspaper, speed – and therefore absolutely reliable scheduling – is a prerequisite for the production of a daily newspaper.

Product	Manufacturer
DataControl/Prinect	Heidelberg
PECOM	MAN Roland
OPERA	KBA
K-LAN II/KMS	Komori
DiamondLink System	Mitsubishi

There are similar marginal conditions in the printing of catalogs and magazines. In this case, the press utilization schedules have the highest priority because the equipment is so cost-intensive that idle time must be kept to a minimum. Further, any delay in delivering the product will not be accepted by the customer.

If the release of a weekly magazine is delayed, the majority of that issue would not be sold, the advertising customers would not pay their bills because of the delay, and might look for alternative media where they could place their advertising in the future.

This scenario serves to illustrate why the newspaper and magazine printing industries were the first to implement solutions that would reduce such risks. On the basis of these prerequisites, and taking into account the different fields of application, systems were developed so that production could be **planned, monitored, costed, and commercialized efficiently.**

5.4.3 Optimizing print production by automating manufacturing operation:

CIP3 stands for "*International Cooperation for Integration of Prepress, Press, and Postpress*"; it is an association of around forty international companies, mostly manufacturers of prepress, press, and postpress, as well as suppliers and users. *(In 2000*

the CIP3 consortium was renamed CIP4: International Cooperation for the Integration of Processes in Prepress, Press and Postpress.)

The objective of CIP3 is to improve and automate the production of printed products by setting a standard throughout the industry, the **Print Production Format (PPF)**. *PPF defines a uniform data structure and associated coding for the data that is necessary for the whole technical production.* This PPF is supported by the products (software and hardware) of CIP3's members and other companies.
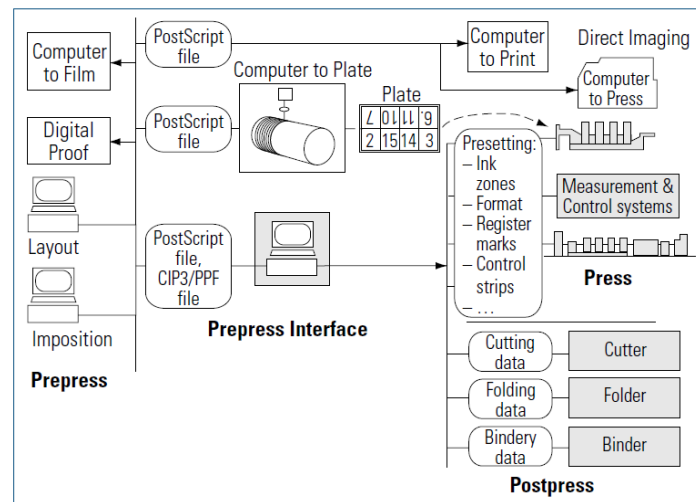
Fig.5.4.1 CIP3/PPF-based prepress interface for the connection of printing and postpress

Since all product information and sheet elements have been defined by the time of imposition, modern imposition systems offer the possibility of generating PPF files.

When **printing**, the *ink zone presetting, paper travel, register adjustment, and the colorimetric and color density measurement can be set using the data from prepress* (see fig. 5.4.1). During imposition, or in the RIP, a low-resolution preview image of the entire sheet can be stored in the PPF file.

Feeder and delivery of a sheet-fed press can be preset according to the sheet format. The PPF file contains the type and position of the *register marks for the register control*. Finally, the PPF file may also contain the *positions and the set point values of color and density measurement fields for in-line and off-line color measurement and quality control.*

Cutting and folding are usually the two major stages in the process of finishing. Cutting involves dimensioning the *cutting blocks and positioning the cutting marks*. Nowadays the coordinates of all blocks to be cut must generally be recorded a new using a digitization tablet; the recording of the coordinates in prepress enables the *automatic prepositioning of the corresponding sensors.*

At the stage of folding all folding procedures and their individual parameters need to be set. Since the selection of the imposition layout already provides the folding layout. It can then be translated into a folding instruction (or in a folding program) adapted for the respective folder.
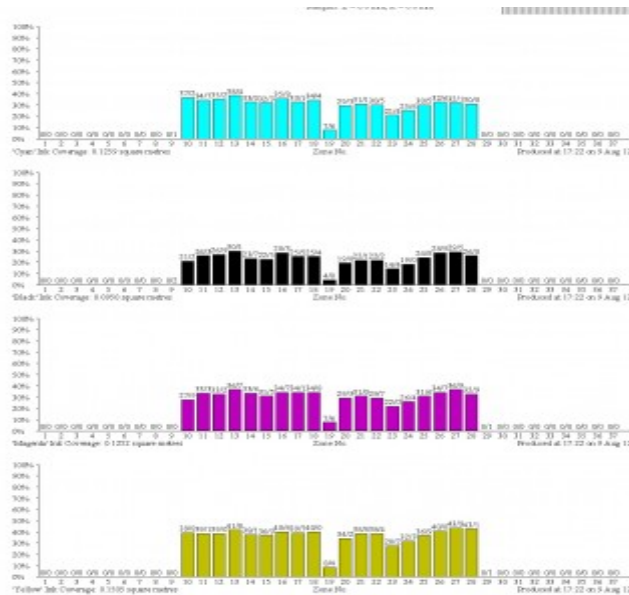
In the subsequent finishing, CIP3/PPF describes how sections that were generated in the previous steps are processed into a final product. The setup data required for these operations is available in **Print Production Format (PPF).** It contains descriptions of operations such as collating or gathering, binding by various methods (perfect binding, thread-stitching, etc.), three-sided trimming, or information about accompanying products (e. g., CDROM) or pull-out postcards.

Another benefit of the *re-usability of this data* is the significantly shortened makeready times for repeat jobs. If necessary, the private data can simply be deleted before data is sent to external production sites. All data is stored in a structured form in the CIP/PPF file. This also facilitates access to the data required for a process (e.g., cutting).

Unit V

1 mark questions

1. Define Web to print.

Web2Print is a broad term that refers to the practice of doing print business using web sites. It easy to manage your print collateral any time, any place, anywhere in the world.

2. Mention two advantages of web to print.

- Shipping, purchasing and personalized billing integration.
- Reduce inventory and administrative costs.
- Templates allow print customers to control brand management and content.

3. Mention two disadvantages of web to print.

1. Small- to mid-sized print houses and print brokers are limited in their access to software and server system solutions
2. these systems often require the use of digital systems
3. Most proprietary and trade name software expensive for this sector.

4. Expand TCP/IP.

Transmission Control Protocol/Internet Protocol

5. What is stand for http?

Hypertext Transfer Protocol

6. What are the forms of network connectivity?

1. Stand-alone networks
2. Internal networking
3. External networking

7. Mention advantages of digital workflow.

1. Saving time
2. Quality improvements
3. Digitization and automation

8. Mention any two monitoring systems product.

1. DataControl/Prinect – Heidelberg
2. PECOM – Man Roland
3. Opera – KBA

9. What is stands for CIP3?

CIP3 stands for "*International Cooperation for Integration of Prepress, Press, and Postpress*"

10. Define PPF.

Print Production Format (PPF) defines a uniform data structure and associated coding for the data that is necessary for the whole technical production.

11. What is purpose of tracking system?

The tracking system is to gather information from each partial system and to give an overview of the entire production.

12. What are the control parameters in printing console?

Ink zone presetting, paper travel, register adjustment, and the colorimetric and color density measurement can be set using the data from prepress.

6 marks questions

1. What do you understand about web to print?

Web-to-print, also known as Web2Print, remote publishing or print e-commerce is a broad term that refers to the practice of doing print business using web sites. Companies and software solutions that deal in web-to-print often bleed into more standard e-commerce and online services like hosting, website design, and cross medial marketing.

2. Discuss about benefits of web to print.

- Brand Consistency

- Customized Content

- Digital Asset Management

- Control of Time Save Money and Add to Bottomline

- Budget Control & Inventory Control

- Approval Process

3. Define Client/Server systems.

The client-server model is a distributed communication framework of network processes among service requestors, clients and service providers. The client-server connection is established through a network or the Internet.

4. Why we use network protocol?

A protocol is a set of rules and standards that basically define a language that devices can use to communicate. There are a great number of protocols in use extensively in networking, and they are often implemented in different layers.

5. What are the classifications of network?

- Internet,

- Intranet,

- Extranet and

- Broad Band Networks.

6. Define Internet.

- The Internet is a network that is available to anyone with an Internet-connected device.

- It is a massive collection of networks sharing information publicly in the form of interlinked Web pages.

7. Why we use production monitoring systems?

- Ensuring punctual delivery and cost-effective production.

- Companies have a detailed overview of the jobs in production.

- Particular have real-time update of their status.

8. Define FTP.

- FTP stands for file transfer protocol. It is also in the application layer and provides a way of transferring complete files from one host to another.

- It is inherently insecure, so it is not recommended for any externally facing network unless it is implemented as a public, download-only resource.

10 marks questions.

1. Discuss about basics of web to print and write its merits and demerits.
2. Explain about Network Concepts and Interfaces using in printing industry.
3. Discuss about the classification of network.
4. Explain in detail optimizing print production with diagram.
5. Describe about Client Server system with types of network connectivity.
6. Write short notes on (i) Intranet   (ii) Extranet

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