upGrad

Lecture Notes

Composition

In this module, you will learn about the following topics:

1. Note-making
2. Technical writing
3. Visual aids in technical writing
4. Technical report
5. Email writing
6. White paper

upGrad

Note-Making

Note-making is an important study skill and has many uses for students and professionals.

Our mind cannot retain a lot of information unless the information is presented in small portions and the relation between ideas is clear. We remember a picture better than a long text. Similarly, a **note** in the **form of a list or a diagram** can be easily remembered.

On important occasions, we need to remember the essence of the chapter or essay we read. This is not only for preparing for examinations but at other times as well. For example, a note, that is, the main points put in a frame, will help us to deliver a better speech. It will keep the speaker on track.

A note is a short account of a longer essay or lecture. But, it is not a continuous paragraph. The **main ideas are identified and listed**. This listing also follows an order and a format. The main ideas are written as headings, and the smaller supporting ideas are given as subtopics.

Benefits of Note Making

Why do we make notes?

- To improve concentration, focus, understanding and memory
- To recognise patterns, structures and relationships in the material
- To help later reference for exams or assignments or speeches

Making notes helps to:

- Stay alert during lectures, readings and revisions
- Remember the main points before and during speeches
- Understand what you are learning and make your thinking clear
- Be selective and identify key ideas
- Remember the material

- Show connections between points
- Plan and structure written assignments
- Review and revise before exams

Stages Involved in Note-Making

1. Identifying main points
2. Reducing them to short phrases
3. Arranging these short phrases into a suitable format
4. Adding a brief summary and title for the passage

Stage 1: Identifying the Main Points

The **topic sentence** is usually the **main point,** and its supporting sentences are the subpoints. Any other smaller or minor detail related to these subpoints are the sub-subpoints.

1. The main point can be numbered ‘1’ and the subpoint as
    i. and the sub-subpoint as
        a. and then
        b. and so on.

But, a good reading of the passage will make clear what are the main points and which other less important or repeated points can be omitted. This selection process is crucial.

For example:

Effective speaking depends on effective listening. It takes energy to concentrate on hearing and to concentrate on understanding what has been heard. Incompetent listeners fail in a number of ways. First, they may drift. Their attention drifts from what the speaker is saying. Second, they may counter. They find counterarguments to whatever a speaker may be saying. Third, they compete. Then, they filter. They exclude from understanding those parts of the message that do not readily fit with their own frame of reference. Finally, they react. They let personal feelings about a speaker or subject override the significance of the message that is being conveyed.

Title: The Art of Effective Listening

1. Effective speaking depends on:
    1.1. Effective listening,
    1.2. Proper concentration on listening, and
    1.3. Proper concentration on understanding what you hear.
2. Reasons why incompetent listeners fail are as follows:

2.1. Their attention drifts.

2.2. They find counterarguments.

2.3. They compete and then filter.

2.4. They react.

Stage 2: Reducing the Main Points to Short Phrases

The selected **main points should be reduced to short phrases**. Full sentences must not be used.

For example:

1. **Longer version**: While we were hiking in the wilderness, we encountered a mountain lion.

   Shortened version: We encountered a mountain lion on our wilderness hike.
2. **Longer version**: Those who wish to travel with us must be ready to leave at short notice.

   Shortened version: Travellers should be ready to leave at short notice.
3. **Longer version**: While Girish was walking on the beach, he found many interesting shells.

   Shortened version: Girish found many interesting shells on his beach walk.

Stage 3: Finding a Suitable Note Format and Show the Points in a Framework to Make Them Visible and Memorable

For example:

1. Block or list format using numbering
2. Tree diagram
3. Spidergram
4. Mind map

Stage 4: Adding a Brief Summary and a Title

A short summary of the passage should be given to provide a gist.

Suggestions for making notes

1. Leave plenty of white space - do not fill the page.

2. Think of a logical and memorable way to arrange notes, which can help you recall them quickly.
3. Make use of letters, abbreviations and acronyms, numbers, bullets, highlighting, colour, underlining, indentation, columns, diagrams, headings and subheadings.
4. Suggest an appropriate title for the notes, summary or abstract, as given in the question.
5. Include a minimum of 4–6 different, recognisable short forms, i.e., abbreviations of the words in the notes.
6. Cover all the important points in the notes meaningfully to provide the abstract/summary in about 80–100 words.
7. Write the summary or abstract using complete sentences to make a paragraph.

Abbreviations and Symbols

1. They are used for precision and economy of words, and hence, they are quite helpful in note-making.
2. At least four recognisable abbreviations should be used in note-making in your board examination.
3. These are essential components of note-making.
4. Students often make use of abbreviations and symbols while doing their written work.

Sample Block Notes

Let's take a look at the following passage:

1. Occasional **self-medication** has always been part of normal living. The making and selling of drugs has a long history and is closely linked, similar to medical practice itself, with **belief in magic**. Only during the last hundred years or so, with the **development of scientific techniques**, has **diagnosis become possible**. The **doctor** is now able to **diagnose many illnesses** correctly, with specific treatment of their causes. In many other illnesses of which the causes remain unknown, doctors are still limited, similar to the unqualified prescriber, to the treatment of symptoms. The doctor is trained to decide when to treat only symptoms and when to attack the cause. This is the essential difference between **medical prescribing** and **self-medication.**
2. The advance of technology has brought about much progress in some fields of medicine, including the development of **scientific drug therapy**. In many countries,

public health organisations are improving, and people's **nutritional standards have risen.** Parallel with such beneficial trends are two instances, which have an adverse effect. One is the use of **high-pressure advertising by the pharmaceutical industry,** which has tended to influence both patients and doctors and has led to the **overuse of drugs** generally. The other is the **emergence of eating, insufficient sleep and excessive smoking and drinking.** People with disorders arising from such bad habits as well as from **unhappy human relationships** often resort to self-medication and thus add the taking of pharmaceuticals to the list. Advertisers go to great lengths to capture this market.

3. **Clever advertising**, aimed at **chronic sufferers** who will try anything because doctors have not been able to cure them, can induce such faith in a preparation, particularly if steeply priced, it will incur a very real effect in some people. Advertisements are also aimed at people **suffering from mild complaints** such as **cold and cough,** which clear up by themselves within a short time.
4. These are the main reasons why **laxatives, indigestion remedies, painkillers, cough mixtures, tonics, vitamin and iron tablets, nose drops, ointments** and many other preparations are found in large quantities in many households. It is doubtful whether taking these things ever improves a person's health. It may even make it worse, as the **preparation** may contain **unsuitable ingredients,** or the consumer may **become dependent on them,** or they might be **taken in excess**, or they may **cause poisoning**, and, worst of all, symptoms of some serious underlying problems may be masked, and therefore, medical help may not be sought. **Self-diagnosis is a greater danger than self-medication.**

Block notes model

Self-Medication

1. **Self-medication**
    a. Part of normal living—last 100 years
    b. Advance in diagtech.
    c. Drs rqd. for diag. and treatm^{nt} of disease
    d. Self-medication differs from **medical prescription**
2. **Technological advm^{nt} in medicine**
    a. Drug therapy
    b. Impvt. in pub. health org's

    c. Increase in nutri'l standards
3. **Clever advertising by pharma'l companies**
    a. Take advantage of people's need
    b. Chronic sufferers
    c. Mild complaints such as cold and cough
    d. Faulty lifestyle
        i. Lack of exercise, overeating, insuff't sleep, etc.
        ii. Stress, unhappy rela'ps, etc.
4. **Dangers of self--medi'n.**
    a. Prep'n may contain unsuitable ingre.
    b. Taker becomes dependent
    c. Taker consumes medi'n in excess
    d. Prep'n may cause poison'g
    e. Real cause of illness gets suppressed or untreated

Abbreviations

1. medi'n - medication
2. diagtech - diagnosis technology
3. treatmnt - treatment
4. advmnt - advancement
5. deve - development
6. impvt - improvement
7. pub - publics
8. rqd - required
9. org's - organisations
10. insuff't - insufficient
11. nutri'l - nutritional
12. drs - doctors
13. diag - diagnosis
14. pharma'l - pharmaceutical
15. rela'ps - relapse
16. prep'n - preparation
17. ingre - ingredient
18. poison'g - poisoning

Summary of the passage

Self-medication is a part of normal living. Medicinal experts are required for diagnosis and treatment of disease according to symptoms and causes. The development of drug therapy and improvement in public health organisations and nutritional standards have helped medical science to progress. Needless advertising by pharmaceutical companies and emergence of the sedentary society are two opposing trends. In addition, self-medication is dangerous, as the preparation may be toxic or may contain unsuitable ingredients, and the user becomes dependent and consumes medicine in excess. **Self-diagnosis is worse than self-medication**.

Note: **Abbreviations,** i.e., short forms of long words can be provided at the end of the note. These will save space.

Summary

A short summary of the passage in 6–8 sentences can be given. This is a string of the main points and subpoints only. By reading this, the whole passage can be easily understood.

Title of the passage

The writer of the note should suggest a suitable title for the given passage. The title will show the main theme and matter of the passage.

Tree Diagram

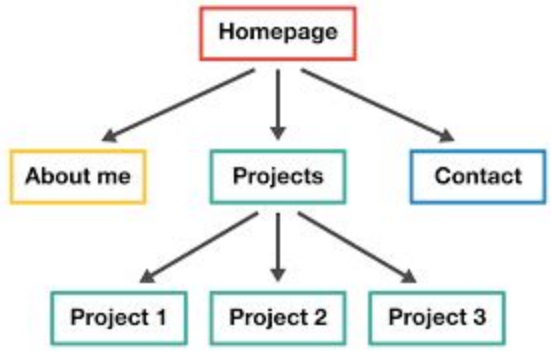
Also known as an organisational chart, a tree diagram appears similar to a tree with branches. Just as a tree has roots, trunk and branches, the tree diagram also shows the structure of an institution or the sequence of an event. It has a root node that is independent of the parent. Then, there are nodes connected with one another by lines, and finally, there are leaf nodes. This is similar to the main point, subpoint and sub-subpoints in the block or list notes that we discussed earlier.

Tree diagrams are often used:

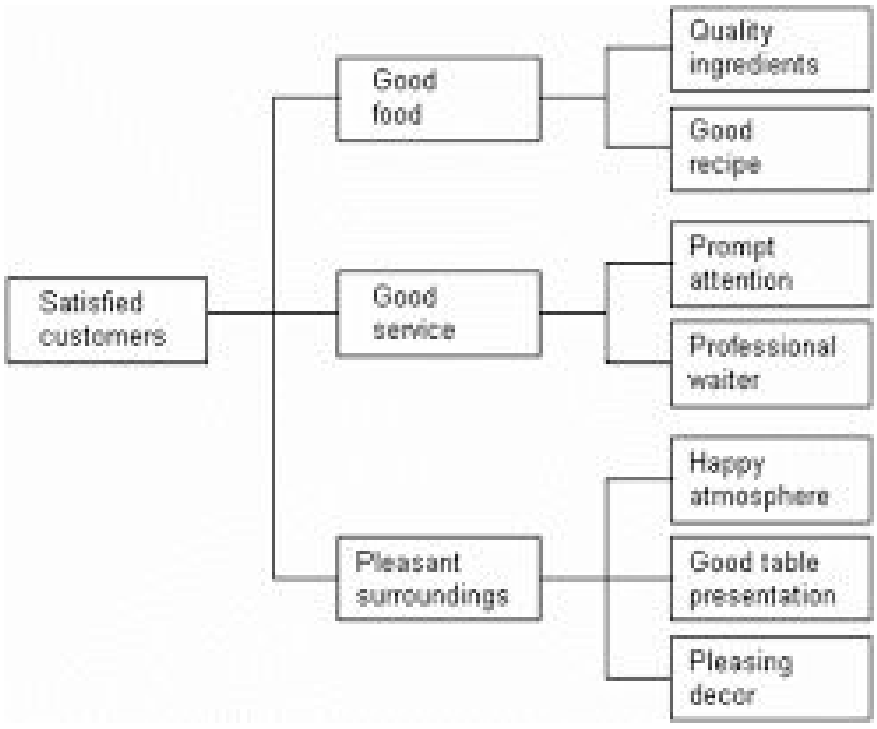
1. To present family relations and descent,

2. To show classification in taxonomy,
3. To show the origin of species in evolutionary science, and
4. In businesses and organisations for managerial purposes.

A simple tree diagram about a home page is as follows:



A tree diagram about satisfied customers of a hotel run successfully is as follows:



Mind Maps

The term '**mind mapping**' was coined by Tony Buzan on the BBC's 'Use Your Head' in 1974. This completely changed the ways in which we take notes, brainstorm and study.

What are mind maps?

Mind maps are another way to **present information graphically**. The title/main idea is always located in the centre of the map, and thus, it is always clearly visible. Related ideas branch off from the centre in all directions.

When to use mind maps?

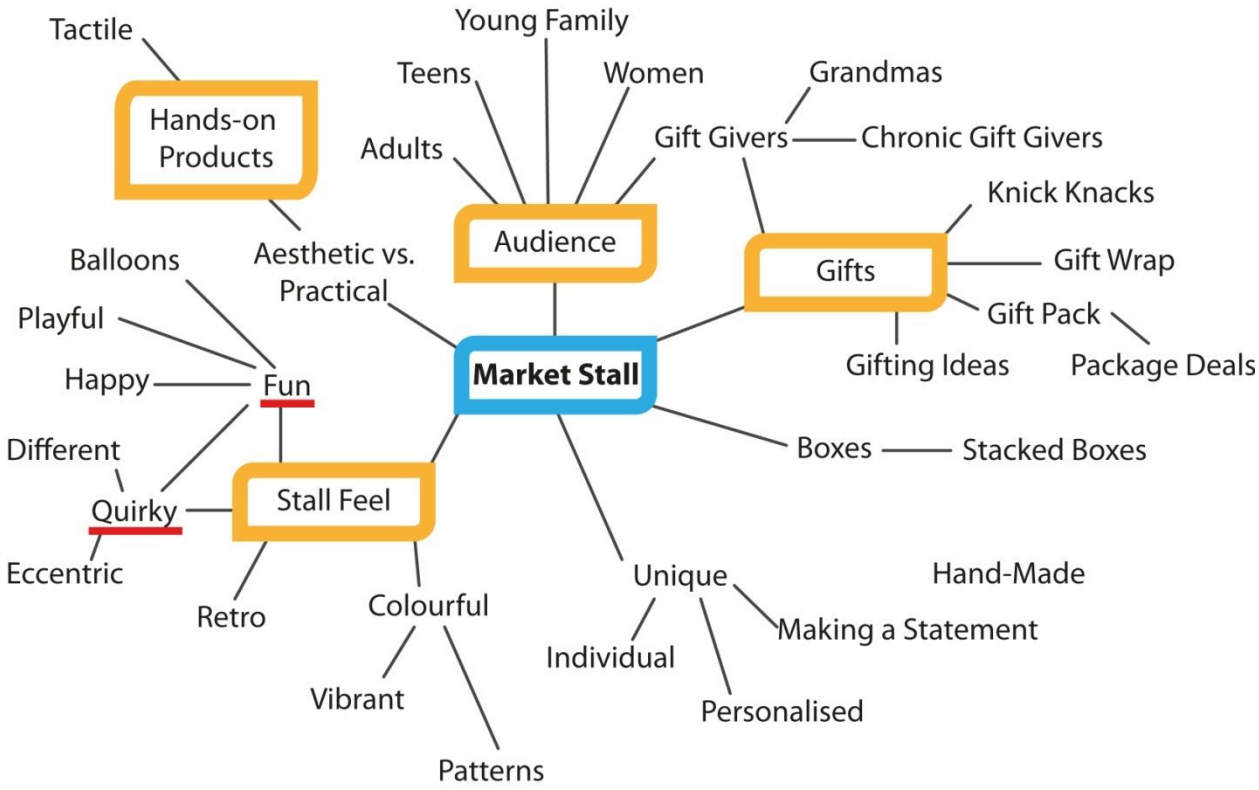
A mind map can be used:

1. To brainstorm a topic,
2. To brainstorm a topic and note the ideas and thoughts as they flow freely,
3. To increase reading comprehension, and
4. To increase creativity and productivity.

Spidergram

1. This looks like a spider.
2. This is another form of a tree diagram.
3. The only difference is that there are no branches, but like a spider, the **main idea is placed in the centre**.
4. The smaller details are placed around the centre.

A spidergram on a market stall is given below.


Market Stall
Audience
Young Family
Teens
Women
Adults
Gift Givers
Grandmas
Chronic Gift Givers
Gifts
Knick Knacks
Gift Wrap
Gift Pack
Gifting Ideas
Package Deals
Boxes
Stacked Boxes
Unique
Hand-Made
Making a Statement
Individual
Personalised
Stall Feel
Colourful
Vibrant
Patterns
Retro
Quirky
Eccentric
Different
Fun
Happy
Playful
Balloons
Hands-on Products
Tactile
Aesthetic vs. Practical

upGrad

Technical Writing

Why technical writing?

It is a special type of English used in scientific context. Language changes its form according to the context in which it is used. The English used in everyday life, in offices and in academic institutions is flexible. But, technical English is different. The language is **extremely clear, brief and accurate**. No long and detailed descriptions are allowed here. It is **purposeful and direct**.

Uses of technical writing

1. It is employed mostly in writing scientific papers, **technical reports** and other documents.
2. It is used to describe an object, a process or an experiment or when a scientific paper is written for a journal.
3. We find it in books on technical subjects, in presentations at conferences, and so on.

Qualities of technical writing

The qualities of technical writing are as follows:

1. **Conventional**: In technical English, the same rules and principles are followed by all. As in note-making, we find structure and formatting such as headings, subheadings and numbering. For example, technical reports are presented in the same format all over the world. They have sections such as **introduction**, **body**, **conclusion** and **recommendations**. As far as the language of **technical writing** is concerned, it is **formal and brief**, using past and present tenses for reporting. Also, passive voice is preferred, and there are figures and illustrations such as tables and charts.
2. **Clear**: Only one idea per sentence is expressed, and the sentences are kept short, ranging from 10 to 20 words. Also, every paragraph has a single theme.
3. **Brief**: Only as many words as necessary are used. Repetition reduces clarity and flow.
4. **Precise**: Vague, unclear terms are omitted. Words such as 'almost', 'about', and 'approximately' and phrases such as 'a large sample' are avoided. Over-generalisations

such as 'It is widely accepted' or 'Everyone knows that' are not preferred. Instead, exact figures and data are given.

5. **Formal**: Informal and colloquial expressions are not employed. Words such as ‘kids’, ‘roughly’ and ‘perhaps’ are not encouraged. Reference is made to 'man/woman', and not 'ladies and gentlemen'. Expressions such as 'So, what do these results indicate?' are discouraged. Excessive passive voice is no longer popular in scientific circles.
6. **Impersonal**: No personal opinion is allowed. Words such as 'scandalous' and 'ridiculous' cannot be used here. **Objectivity** is strictly followed. Feelings and thinking are suspended. Only facts speak here. Neutral stand is preferred.
7. **Carefully worded**: Overstatements are avoided. If you are unsure of the results, or if you are uncertain about a development, then you can do ‘hedging’, that is, using cautious language with verbs such as ‘possibly’ ‘very likely’ and ‘appears’ or phrases such as ‘results seem to suggest’. One should not commit to guessing.

   An example of ‘hedging’: ‘These results **may possibly suggest** that there is a **likelihood** that this species **could be vulnerable** to extinction’.

   Better version: ‘These results **suggest** that this species **is at risk** of extinction.’ But, hedging can be used only when necessary, once or twice in a paragraph.
8. **Indirect**: In the context of technical writing, important matters and statements are reported briefly. They are not quoted in actual words.
9. **To the point**: The main points must be quickly and clearly stated. Any reader should be able to skim-read and get the point in a minute’s time.
10. **Graphical**: In technical writing, data is **visually presented** to save time in reading long texts. Simple **tables and charts** with correct data are enough for presentation. But, they should not be confusing. Excessive facts and colours spoil the purpose of easy communication. The main point of the graph should be discussed in the main text.

Differences between general and technical writing

1. **How an umbrella works**

   Technical description:

   The umbrella is an instrument used to protect ourselves from rain and sun. It has a shaft or a stick for holding it. There is a button right above the handle and beneath the shaft. When that button is pressed, the nylon material, which is attached to the ribs, stretches out like a dome. Ribs are placed at the bottom of the upper parts, which are used to

stretch and fold the fabric. On the nylon material, there is a mechanism similar to a spring sticker. It is used for compressing the umbrella in order to place it anywhere easily.

General description:

The umbrella is a helpful object, as it guards us from rain and sun. It has a simple mechanism. There is a stick to hold it in our hand. There is a button right above the handle. If we press it, the nylon material attached to the ribs stretches out upwards like a dome and covers our head. Ribs are placed at the inside surface of the nylon fabric, which will move to stretch and fold the fabric. A mechanism similar to a spring with a button is fixed at the top of the central stick. When pressed, it compresses the umbrella, closing it neatly into a foldable shape.

2. **Description with police jargon**

   Technical description: The cop adjusted his Sam Browne, checked his side arm and went on his beat. He took up the walkie-talkie and asked, 'Who is my RP?'

   General description: The policeman adjusted his belt, checked his revolver and started walking on his regular given route for patrolling. He picked up the walkie-talkie and asked, 'Who is the person reporting this crime to me?'

3. **The basics of lathes and how they work**

   Technical description:

   Although there are different types of lathes (see below), all of them use a similar method in which the workpiece rotates against the cutting tool, which is stationary. Milling machines, on the other hand, work in the opposite way. With a milling machine, the workpiece is stationary, whereas the cutting tool rotates.

   Lathes are designed to remove material from workpieces by exposing them to a cutting tool. The workpiece is secured to the lathe, at which point it rotates while pressing into a cutting tool. The rotational movement of the workpiece allows for the fast, efficient and precise removal of material.

   Lathes are large and complex machines consisting of many individual components. The headstock, for example, is the component that holds the workpiece as it rotates. Lathes also have a tailstock to which the workpiece can be secured. The tailstock is typically used for exceptionally large or long workpieces.

The main **difference between technical and general language** is the use of **jargon**. Jargon refers to abbreviations and popular technical terms used in specialised fields such as medicine, law and police. Sometimes, too much jargon is used in technical language, but this excessive use defeats the purpose of communication. **Technical language** is used to **communicate specifics**, while **everyday language** is usually more **generally**. **For example**, a senior scientist uses technical language in a presentation but uses everyday language when speaking to the non-technical employees.

Similarities between General and Technical writing

Technical English follows the general rules of grammar and ways of writing. It is not a separate language but a specialised form used only in the scientific world.

upGrad

Visual Aids in Technical Writing

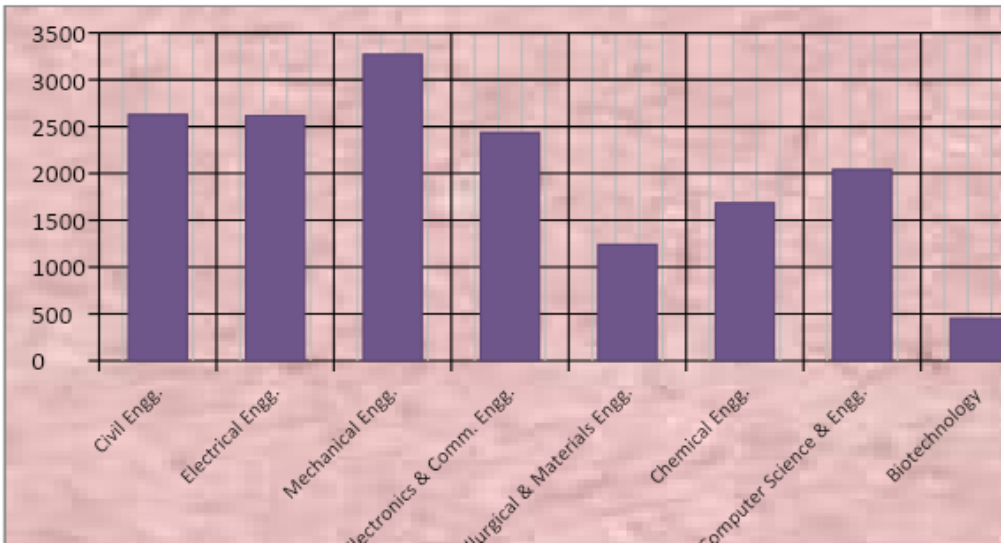
When to use which graphics?

1. **Tables:** They are used to show large data and the relationship between them. They are accurate but cannot present a visual image.
2. **Bar graphs:** They show numbers that are independent of each other. For example, a bar graph can be used to show the number of people who preferred each of the groceries from Spencers, Reliance Fresh and big shopping malls.
3. **Pie charts:** They show you how a whole is divided into different parts. For example, you may want to show how a budget has been spent on different items in a particular year.
4. **Line graphs:** They show you how numbers have changed over time. They are used when you have data that are connected and to show trends, for example, average nighttime temperature in each month of the year.
5. **Flow charts:** They show the steps in a process, one leading to another.
6. **Drawings and photographs:** They show external appearance and minor details that only a picture can show.

The following table is about engineering degrees in B. Tech awarded by a university since its beginning.

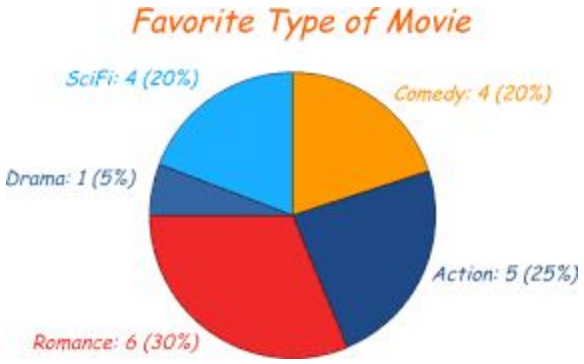
Civil Engineering	**2627**
Electrical Engineering	**2615**
Mechanical Engineering	**3270**
Electronics & Communication Engineering	**2434**
Metallurgical and Materials Engineering	**1239**
Chemical Engineering	**1684**
Computer Science & Engineering	**2041**
Biotechnology	**450**
TOTAL	**16360**

This table looks like the following image when converted into a **bar graph**.



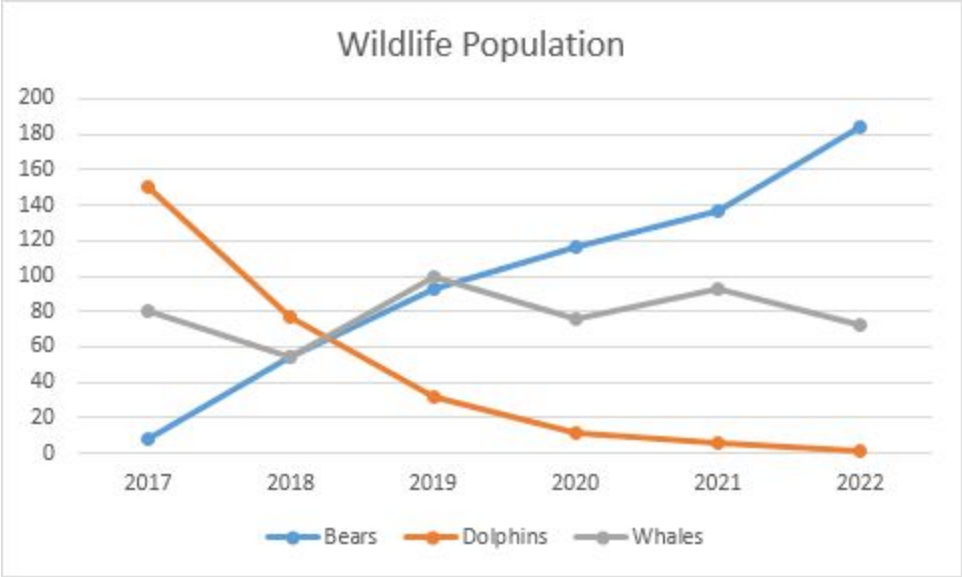
This graph tells the story of admissions more clearly, as the medium is not verbal but pictorial. In the **table** given above, **only numbers** are seen, which **do not convey much**. This is why graphs are required in technical writing of all forms.

A **pie chart** about different genres of movies liked by people is given below.



- The advantage is that it clearly shows the distribution of the different genres of movies.
- Answering the question ‘Which is the least favourite genre of movie?’ becomes easy. It is ‘drama’, as it only occupies 1% in the pie chart.

Moving further, a **line graph** on wildlife population is given below.



In this graph, the steady decline of dolphins can be seen clearly.

upGrad

Technical Report

The Technical Report: What and Why

- The **technical report** is an extremely common yet valuable communication that most professionals, particularly engineers and scientists, learn to write early in their careers.
- By definition, a technical or a scientific report is a document that **describes the process**, **progress** or **results** of technical or scientific research or the state of a technical or scientific research problem.
- The reports are seen as valuable documents.
- A technical report is a unique document because it involves many people and causes interest in several circles.

Report Initiation Process

- Reports do not signify problems but **progress** for a company or an office.
- Every report is necessitated by a problem, and so, there can be as many solutions as there are problems.
- Technical reports are unique because they are **need-based,** and the responsibility of writing the report is given to an employee who is trustworthy and has the required skills. It can often be confidential, or if it involves outsiders and some other sections or departments, it is made public.
- The chosen employee is given this responsibility through a written order. She/He is also granted a budget and given time and access to information in some sections for some time.
- It is the duty of the report writer to collect information, study the problem, analyse the data collected and formulate a solution. If asked, she/he should make a recommendation as well.

Broad Classification of Reports

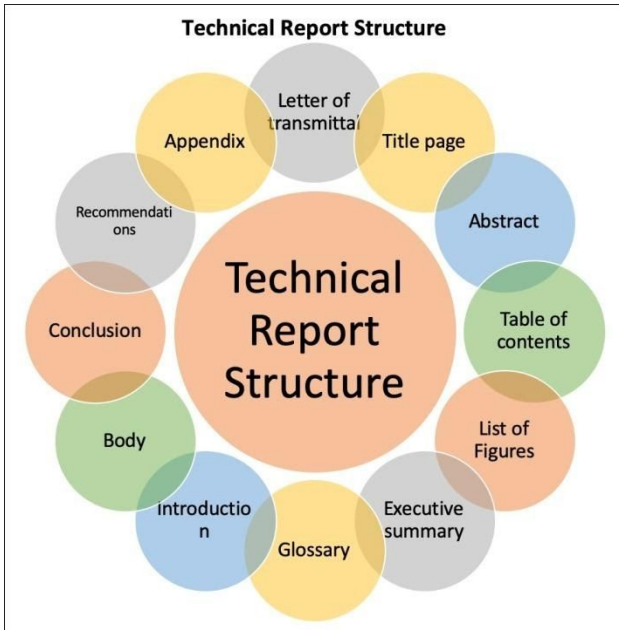
1. **Information Report**: The report writer is expected to gather, analyse and submit information, adding a conclusion.
2. **Action Report**: The report writer is expected to recommend a single action in favour of one of the many possible solutions.

Report Conventions

- Reports are highly organised and formatted with a title and headings and subheadings so that information can be quickly spotted.
- Reports are bound in red or green or some other colour meant for technical reports in a company.
- Reports generally do not exceed 10–12 pages (except in case of sensitive investigations).
- Graphics are used to highlight information.
- Language is kept simple and direct.

Purposes of a report

1. To provide a government department with information that it will base policy on
    a. **For example**: A government agency of the dangers/benefits of a particular course of action
2. To instruct other engineers who will use your plan to work
3. To present the outcomes of a project to stakeholders
    a. **For example**: Showing a client that your solution will meet their needs
4. To convince the reader of something
    a. **For example**: Convincing the public that a proposed project is beneficial



Types of reports

1. **Proposal Report**
    a. It is similar to other reports but has additional sections as follows:
        i. **Credentials**, that is, the writer's special qualifications and suitability to do the projects
        ii. **Staffing and infrastructure requirements**
        iii. **Budget required** with justification for purchase of each item
2. **Progress Report**
    a. This is **prepared at regular intervals** to show the progress of an ongoing project or show the reasons for slow progress.
3. **Final Report**
    a. This is written after all the work is done on the problem identified and clear recommendation is made.
    b. The final call to implement a decision is taken based on the strength of the recommendations made.

More Types of Reports

1. **Feasibility Report**

a. This is the first step in which you propose a new business venture and get an approval for it.
b. The possibility of its success is assessed by experts in your company, and only then, the project is passed.

2. **Proposal Report**
    a. It gives details of finance, equipment, etc., and gets approved by authorities in the company.
3. **Progress Report**
    a. This is prepared at regular intervals to show the progress of an ongoing project or show the reasons for slow progress.
4. **Final Report**
    a. This gives details of all data collected, analysed and concluded.

Features of a Technical Report

1. **Letter of Transmittal:** This is the beginning of the entire effort. Here, the company authorises the report writer to study the problem and submit findings. The project may be given a name and number for easy reference in future.
2. **Title:** In addition to your name and designation, the date and to whom the report is being submitted and the title should be clearly framed.
    a. **For example**:
        i. The Impact of Playing Violent Video Games on Children
        ii. Potassium/Lime Drilling System in Navarin Basin
3. **Table of Contents:** This can be more informative with subsections indicating details.
4. **Executive Summary:** This presents the entire **report in brief**, stating the problem, the method of data collection, analysis of data and conclusion and recommendations. But, **executive summaries address non-technical audiences,** and so, they focus more on conclusions and recommendations rather than methods.
5. **Introduction:** This section provides the writer's purpose and context for generating the report.
6. **Data Collection:** There are **two ways** of collecting data as mentioned below.
    a. Through standard books and journal articles if the problem does not need a field study
    b. Through a survey, which has the following **two forms**:

i. **Questionnaire**: A well-planned questionnaire can be designed and administered to the people concerned.
ii. **Interview**: Oral interviews can be conducted with experts and authorities on the topic.

7. **Body:** This is where the information collected is presented under relevant heads, such as **problems and solutions**. Here, the matter can be explained through charts and diagrams. A report without graphics can be difficult to comprehend.
8. **Conclusion:** The research findings appear in this section. Conclusions must summarise main facts or results, repeat the cautionary measures and suggest alternate approaches.
9. **Recommendations:** This is a call for action. On the basis of the data collected and analysed, the conclusion part of the report can be implemented.
10. **Appendix:** This is for additional information, graphs and photographs, etc.
11. **Glossary:** This is for explaining technical terms.
12. **Acknowledgements**: This is for thanking people who gave interviews, answered questionnaires and gave access to archives and libraries.

More on Technical Reports

Sample Proposal Used by Organisations

Every proposal is unique because it addresses a particular situation and a particular context and meets a particular purpose. But, the following features of an organisation can be used in most of the proposals:

Introduction/Background:

It briefly describes the problem or the opportunity seen and offers a solution. It shows how to take the opportunity and stresses upon its benefits.

Project description:

- **Details of solution idea and how it works**
    - confirm possibility of its success,
    - alert to the loss if not implemented quickly,
    - explain proposed methodology and the resources and finances needed, and
    - list possible hurdles.
- **Credentials**: Establish the writer's skills and special experience for this project.
- **Timeline and budget**: Give a timeline chart to reach different stages and itemised

budget.

- **Conclusion**: Put in arguments in favour of your project in a convincing manner.
- **References**: List your sources.

Language Aspects of Technical Reports

- **Define your purpose** and audience clearly before you begin to write.
- Be **positive and constructive**; this is an attempt to improve a situation.
- Be **solution-oriented**; do not blame or stick to the negative.
- Make your introduction extremely **logical and objective**.
- Use only **logical and ethical appeals**; use emotional appeals rarely.
- Ensure that all the reports of all the four types, from feasibility to the final report, are kept in mind and followed.

7 Cs of Communication

1. Clear
2. Coherent
3. Concise
4. Courteous
5. Concrete
6. Complete
7. Correct

Data Collection

Data can be collected through the following two methods:

Questionnaire:

For example, for a problem about starting a newspaper, the following questions may be framed:

1. In which language would you want your newspaper to be published?
2. What could be the focus of the paper? Politics, fashion or sports?

Interview:

1. Do you read a daily newspaper? If so, which one?
2. Do you think there is scope for one more city newspaper in English?

Note: Interviews are suitable for people of high rank who would not have the time to fill out long questionnaires.

A Sample Feasibility Report

Report on the feasibility of installing a solar power plant in the college:

Abstract

Our university has a huge campus and a student strength of about 6,000. The electricity requirements are heavy and expensive. It is proposed to install a solar power plant so that regular electricity consumption is reduced, and cheap and abundant power through solar panels becomes available. Enquiries were made in the College Engineer's office about the actual power requirement and the possible generation of power through solar panels. An interview with the Director brought out the urgency of the situation. An estimate was prepared for ₹20 lakh for installation of solar panels and other machinery for maintenance purposes. Approval has been obtained, and procedures for purchase of equipment have been initiated. It is expected that about 30% of the monthly electricity bills would be saved because of the installation. The campus would be cleaner and greener, and there is a possibility to sell surplus power to external agencies. Hence, it is recommended to purchase and install a solar power plant with panels on roofs of buildings. The project is expected to be completed in four months, way before the beginning of next summer.

Introduction

Power and water place high demands on an institution or any residential cluster. In these days, both are getting scarce. Non-renewable energy sources are being used up in great quantities. So, people are looking for alternative fuels to produce enough electricity to meet their needs. XYZ University has faced these problems and is now searching for alternatives. It is proposed to install a solar power plant on the campus for this purpose. Self-sustenance is the aim, and saving money and keeping the environment clean are also taken care of.

Scope

The report limits itself to decide on the installation of a solar power plant. Related issues such as long-term maintenance and contracts for repairs are not part of the scope.

Body of the report

Causes for shortage of power on campus:

A: Power consumption is high because of large student strength.

B: In summer, the demand for power goes up by at least 30%.

C: There is a possible increase in intake of students next year.

D: There may be power shortage in a particular region because of increase in sale of machinery consuming large units of power.

Solutions

A: Search for alternative fuels.

B: Prefer renewable energy sources such as wind and solar energy.

C: Use rooftops of college buildings for setting up solar panels.

D: Clear an undeveloped area on campus to set up the plant.

Estimate: The plant is expected to cost ₹20 lakh, and the college is ready to raise the resources.

Staffing and training: Qualified technical personnel are required to install and maintain the plant.

Conclusion

The discussion given above makes it extremely clear that XYZ University requires an additional source of power. A solar power plant would be a logical choice, as it is less expensive and generates power in all seasons at low cost.

Recommendation

It is categorically decided to go for installation of a solar power point on XYZ University campus in the near future.

upGrad

Email Writing

When is email used?

Email is employed for many different purposes, including contacting friends, communicating with professors and supervisors, requesting information, making complaints and applying for jobs, internships and scholarships. These mails use language in different levels of formality and are written keeping their purpose and the receiver of the email in mind.

Best Occasions for use of email

Email is the best choice when:

1. You want to get in touch with a person who is not reachable, away in a far-off place or abroad;
2. There is no hurry to stick to a deadline; the receiver can respond at her/his leisure;
3. You wish to send a common message or caution to a large number of people in your office or organisation, such as a memo for latecomers;
4. You want to send a paper or document to someone for a serious and specific purpose; and
5. you need to maintain a written record of the communication for official or legal purposes.

When not to use email?

1. Email is unsuitable when the content that you want to send across is critical and requires a lot of explanation or needs feedback quickly.
2. Email is not private and secure. Confidential content cannot be sent through email. A backup copy is always accessible on a server for anyone who intends to misuse your email. Simply deleting your message is also not safe.
3. Email is unsuitable when you want to express anger or unhappiness.

Format of an Email

From: Sender's email ID

To: Receiver's email ID

CC: Other concerned people whose email IDs are visible to the receiver

BCC: Other concerned people whose email IDs are not visible to the receiver

Subject: Reason or purpose of the email

Greeting/Salutation: Showing respect using 'Dear Sir/Madam'

Main Body: Content of the email in three short paragraphs

1. **Introduction**
2. **Discussion of matter in detail**
3. **Conclusion**

Closing: Thanking for their time and attention

Attachments: Additional documents that are pertinent to the subject matter or context of the email

Signature Line: Name and contact details of the sender

Sample email from a student secretary

To: (Email ID of the recipient)

From: Studentsec.Indira@nitw.ac.in

CC:

BCC:

Subject: Inter-College Sports Meet

Hello everyone!

This is about an inter-college sports meet that will shortly take place on our campus for five days during 1 to 5 July 2020. The venue is our stadium.

Everyone is invited to take part in the meet so that our college wins the trophy.

For any more details or queries, feel free to contact me.

Thanks,

(Name and contact details such as phone number)

Elements of an Email

1. **Subject line:**

a. This is the **summary** of your message and cannot be omitted in any email. The subject should be informative and make the reader open the email. Thus, the subject line should be chosen carefully.
    i. **For example**: 'Follow Up: Product Presentation'
b. If the subject line is not catchy and fails to interest the reader, the email fails as communication.
c. Research shows that 35% of recipients open mails if the subject line is good; 69% of recipients classify mails as spam based on the subject line, and 43% of receivers click the spam button based on the email's 'from' name or email address.
d. The subject should not give all information but make the reader curious (interested) to go to the body.
e. **Good strategies for subject lines**: Refer to a deadline; use the word 'tomorrow'.
    i. **For example**: 'Deadline for Submission of Assignments **Tomorrow'**
f. **Create a sense of urgency**: 'Last Few Hours to Get an Attractive Deal'
g. **FOMO**: This means fear of missing something. In business, this is used to hurry customers into buying products. Although it is not a good tactic, it works.
h. The subject should never be a simple 'Hi'. Some important matters needing immediate action and response should not have such a title.

2. **Salutation:**
    a. The first line of your email acts as the greeting. For example: 'Hi Mr. Samson,' or the more formal 'Dear Sir'
    b. Do not assume familiarity with seniors or try to be humorous.
    c. **How am I related to the recipient: Personally or in official capacity?**
    If you have a friendly, personal relationship with the recipient, you can afford to use a more casual greeting.
    d. **What is the recipient's perspective or context?**
    If the recipient is unknown to you, how would she/he possibly react to your mail? How would you react to mails from unknown senders? Choose a suitable salutation considering these questions.
    e. **What is the goal or subject matter of the email?**
    The email salutation sets the tone for the email, so you have to consider what you are writing about when you write your salutation. If the matter is **serious and**

official, it is better to choose a **formal greeting**. On the other hand, for personal occasions, you can select a less formal greeting.

f. **Dear:** Start with 'Dear,' especially if you know the name of the person whom you are addressing. If the recipient has a title such as 'Dr.', 'Captain' or 'Professor', it is polite to use it. If it is a woman, 'Ms.' is better than 'Miss' or 'Mrs.'.

g. **Hi or Hello:** This salutation is less formal. It is often used when addressing a department or a company, such as info@xyzcompany.com. Use 'Hi' or 'Hello' when you are addressing a department or sending an email without personal contact information. For example, if you have to send an email to info@abccompany.com or financedepartment@xyzcompany.com, 'Hello' is an acceptable greeting. It is also appropriate if you have developed a friendly relationship with a client or a supplier. It is better to add the name of the receiver after 'Hello'. Example: 'Hi Mark' or 'Hello Geetha'

h. **Greetings:** Using 'Greetings' as your email salutation lies somewhere on the spectrum between 'Dear' and 'Hi' or 'Hello'. If you have a limited relationship with the recipient, this is a good option.

i. **No formal salutation:** When addressing a large group, you should not use any salutation. You can type in the subject in upper case and start writing the body of the mail without addressing anyone in particular. In case of large companies, this is acceptable and not considered rude.

j. Remember to end all salutations with a **colon, and not a comma**.

k. Salutation sets the tone and has a great impact on your receiver.

l. **Salutations to avoid in a professional email are as follows:**

   i. **To Whom It May Concern:** It is not acceptable. It is extremely impersonal and casual. It shows that you do not care.

   ii. **Hey:** 'Hey' is an informal salutation suitable and mostly used in intra-office correspondence among colleagues of equal rank. This cannot be used for others.

   iii. **Dear Sir or Madam:** 'Dear Sir or Madam' is another outdated greeting that is extremely stiff for a proper business email.

   iv. **Good Evening, Afternoon or Morning:** Using 'Good Evening,' 'Good Afternoon' or 'Good Morning' may seem formal, but it does not take into account the time zone of the recipient.

3. **Body**

This is the heart of the email. Full message is given here.

For example:

'Thank you for attending the new product promotion event this morning. I am attaching a short video file so that your team can watch it as well. Please let me know if you have any questions.'

Complete information should be given here to avoid getting calls for clarification.

Note: There should be **no personal note in a formal email**.

4. **Closing**
    a. This is similar to leave-taking in letter-writing. It could be a ‘thanks’ or a reminder about what you mentioned in the body.
    b. **For example**: 'I look forward to our meeting on Friday. Thanks again!'
5. **Signature**
    a. This is your **identity**. So, you need to give your name, designation and office or company name. Nowadays, it is common to provide such information in a fixed format, which is now automated.
    b. **For example**:
    Sincerely,
    Ramesh Bhandar
    Senior Software Engineer
    Infosys, Bangalore
    c. It is basic. But today, even a photograph is added, and contact information is given to improve communication.

Email Etiquette

These guidelines must be followed by everyone when writing and sending emails. They are not rules but **protocol**.

1. Choose a professional-looking email ID.
2. Make sure that your tone is professional.
3. Make your subject line clear and concise.
4. Avoid grammatical or spelling mistakes.
5. Double-check the spelling of the recipient's name.
6. Ensure that font size is standard.
7. Do not include emojis in your email.

8. Read and reply to professional mails as quickly as possible. Some clients may be time-bound. So, it is recommended to prioritise emails as ‘most urgent’, ‘urgent’, etc.
9. Keep the attachments to a minimum. Ensure that they are attached to the mail and mentioned in the body of the email. The reader, then, will not miss the attachments.
10. After the email is sent, it is often realised that it was sent to the wrong person. This happens in large organisations where people with the same names work. Thus, make sure that you are sending your email to the correct recipient.
11. ICheck the mail for spelling and factual errors before hitting the 'send' button.

Note: Maintaining formality does not mean making your mail look dull. Even in formal mails, you can use a conversational tone. Avoid robotic language that is stiff and artificial.

upGrad

White Paper

What is a white paper?

A **white paper** is a document that is becoming increasingly popular in recent years. The general idea of a white paper is that it is a **formal statement** about a controversy issued by a relevant authority such as a government ministry or an industry or an agency. Such a document has a lot of **validity,** and the facts mentioned in it are open to the public. Many governments have issued white papers on government policy on public topics. The best example and an early one is the white paper issued by Winston Churchill in 1922 about British Policy in Palestine. However, the white paper plays a broader role in modern business, economic and social circles.

A **white paper** is a detailed report on a specific topic that is of current interest and the problems around it. It educates readers and helps them to understand and find a solution to an issue. In the business world, particularly in marketing, a **white paper** is a long-form piece of content, a type of mini e-book.

Objectives of a white paper

1. To share technical knowledge and business information
2. To develop publicity and attract customers

Types of white papers

1. **Technical Knowledge:** This paper focuses on an **objective overview** of the state-of-the-art technology in a particular industry, adding the views of experts in that field. The reader would know the real situation, the advantages and the risks involved. It is not a promotional document.
2. **Product Knowledge:** This is a selling piece, but it is **practical** in its appeal. It shows your product in a real context and gives information about your product applications.

Why write white papers?

- Most companies will educate consumers about the benefits of a specified technology or product. The goal is to **describe the technology**, **product** or **service** in a way that people can easily understand. White paper documents are especially valuable to potential customers because they give unbiased information and analysis.
- Above all, white papers **clarify** things and bring **stability** in political circles, but **in business,** they play a far more crucial role. They **improve sales**, which is always a top priority and also improve the image and credibility of the company or organisation.
- A white paper is mainly supposed to **provide solutions** to the readers' problems. If it is well-written, executives of large corporations talk about it, and it improves the credibility of your company. Customers become interested without your attempts to present or promote your products. The more professional your paper, the better its impact. The interest can be kept up by mentioning the solution at the end.

Accepted norms for white papers

1. **Structure:** It should have **title**, **objectives**, **executive summary**, **introduction**, **solution and conclusion**. These elements are required in every white paper.
2. **Length:** There is no prescribed length, but it cannot be extremely long or extremely short. About six pages is the norm, and it includes data presentation, analysis and other relevant details.
3. **Format:** The most popular format is PDF with care taken about indentation, margins, text orientation, and so on. A **neat**, **formal** look is the objective.

Elements of the white paper

1. **Title:** The title is the first thing the reader will see, so it has to be informative, attractive and attention-getting. Take a look at the two titles given below**:**
    a. 'Implications of Business Intelligence Methodologies on Operational Efficiencies'
    b. 'Six Things You Must Know About Data Warehousing'

    Naturally, most people prefer option b, as it is specific and offers something to learn. It also makes you curious.

Effective titles contain **numbers** as well as an **appeal**. You will wonder what those six things are and go on to read the white paper. You may add a different name such as 'An Executive Overview of…' or 'Special report on...' or 'Intensive Focus on...'.

2. **Defined Objectives:** A series of objectives will neatly structure the paper.
   Developing objectives will fill the paper and make it complete. But, they should be relevant and important.
   This is where the reader will be informed of the **importance**, **the need** and the **benefits** of the new method or innovation being proposed.
3. **Clear Executive Summary:** One needs to briefly state all main points such as topic sentences in a paragraph so that the reader gets a clear bird's eye view of the paper. This is similar to a **synopsis**. One needs to hook the reader with a few attractive facts; all readers may not have time to come back to your work and may choose a simple summary that others provide.
4. **Accurate Data Presentation:** White papers are more **convincing** and become **credible** when they present concrete data with evidence. **Visual aids** such as graphs and pictures enhance the message and make it attractive. Readers would continue to read the paper.
5. **Qualitative Information:** The information given has to be **current and relevant**. Qualitative information increases the **value** and **impact** of the paper. Good templates can be used.

Guidelines for writing effective white papers

1. **Prepare the white paper on a researchable topic**: Some of the popular white paper topics are based on:
   a. Industry trends,
   b. Brand solutions,
   c. Product or service guides,
   d. Data insights and observations,
   e. Niche, educational walkthroughs, and
   f. Common business challenges.
2. **Stick to your objectives**: Ensure that all sections of the paper keep referring to objectives so that they are never out of focus.

3. **Be professional and descriptive**: Use a language style that is formal, not conversational. The tone conveys a lot. Avoid humour unless it hooks the reader.
4. **Begin with an excellent introduction**.
5. **Highlight the value that you will create**: Although you should not try to sell directly, you need to offer useful information and tips to the reader that will establish you as an expert in the field.
6. **Organise the paper**: Format well and draw the reader's attention with headings, colourful pictures, and so on.
7. **Proofread**: Take care about spellings. Show the rough draft to a few people and improve it taking their advice.
8. **Mention product at the end**: You can mention the product while summing up the document.