CHAPTER-2
Effective Presentation Strategies

Successful and inspiring speakers are remembered for their being eloquent, humorous, and having good style. Their ideas and messages cause a change in their audience's actions, attitudes, lives because their purpose are clear.

The more successful our career, the more often will we be asked to make presentation. These presentation may be in variety of situations and different audiences. Constant practice is the key to acquire this skill while preparing a presentation, the following points are to be attend.

01. Planning
    - 1.1 Occasion
    - 1.2 Audience
    - 1.3 Purpose
    - 1.4 Thesis
    - 1.5 Material

02. Outlining andstructuring
    - 2.1 Introduction
    - 2.2 MainBody
    - 2.3 Conclusion

03. Choosing the mode ofdelivery
    - 3.1 Extemporaneous
    - 3.2 Manuscript
    - 3.3 Impromptu

04. Guidelines for effectivepresentation

05. Body language andvoice

06. Visualaids

01. **Planning :** The content of the speech and how one delivers it, are based on the fire important factors.

1.1 Occasion **:** (Physical setting) **:** Occasion refers to the factors such as facilities available for our presentation, time and context of our presentation. Facilities include the venue or local along with the projection equipment, lighting, seating, ventilation etc. We need to know the physical setting, find out whether we will have a podium or table, a public address system etc. If we identify such problem in advance, we can either ask for alternative arrangements or modify our materials, visual aids and style to suit theenvironment.

Time refers to both, the time of presentation and the duration of presentation. Straightforward and factual presentations may work well during the morning hours. Remembering the fact that the most professional presentations are brief, one must present the important points in the first few minutes.

Context refers to the events surrounding our presentation. We would need to adapt ourselves to the existing situations just before the presentation. recent happening can also affect the presentation one should be aware of the role and observations that one takes during the speech.

1.2 Audience **:** The nature of audience has a direct impact on the strategy that one devices. Therefore, it is necessary to have some prior knowledge of theaudience.

- What are their interests, likes & dislikes?
- Are they familiar with thetopic?
- Is their attitude hostile / friendly?
- What is the age, gender, culture, language, educational background, mental statusetc.

If one is going to an unknown audience one must ask the organizer to help one to analyze the audience. One must adjust one's style to accommodate the cultural difference. While speaking on a controversial topic, one must keep aside some time to tackle any opposition from the audience. One must give the impression that he wants to share the views with the audience. The structure of presentation can further be skillfully emphasized by pauses, and changes in delivery techniques.

1.3 Purpose **:** There are 3 different purposes of presentation : To inform, to analyze to persuade. The purpose of a presentation not only decides the content and style but also affects the amount of audience reaction. If one wants to inform the audience, one needs to give a lot of data or information. If the purpose is to analyze, one must invite arguments, suggestions, recommendation and solutions. If one wants to persuade the audience, he requires on the spot thinking skills and in depth subjectknowledge.

1.4 Thesis statement **:** The thesis statement is very important as it spells out the subject and establishes its impact among the audience. Simple, declarative sentence should be framed as thesis statement rather than a question or fragment of a sentence. One must begin to formulate the sentence as soon as he selects the topic and decides thepurpose.

1.5 Material **:** Collecting material requires some research. It will require through understanding and information of a concerned topic. One may consult library, internet, magazines, newspapers, organizational records, statistics and publications. One may collect from surveys and interviews. One may list all the ideas on a piece of paper and then organize them as and when needed.

02. Outlining and Structuring **:** An outline is a framework in which presentation material is fitted. It shows as the right path of our presentation. It serves as a script. Therefore, it is always useful to invest time in outlining. The outline can be in the form of words, phrases or sentences. It can be divided into headings and sub-headings. We should be ready to skip the topic or sub topic as per the requirement of time and audience. A well organized presentation makes our presentation more comprehensible. Taking too long to get to the point, including irrelevant material in the speech omitting necessary information or messing up ideas can lead to a chaotic structure. The presentation should have the following format.

2.1 Introduction **:** It should grab attention, introduce topic, contain a strategy for establishing credibility, preview the speech, establish rules for question and have a smooth transition to the maintext.

2.2 Main Body **:** The main body should contain all the main points and supporting material, the entire matter should matter should be organized in a logicalsequence.

2.3 Conclusion **:** The conclusion should contain signal, highlight, summary, closing statement, re-emphasis, a vote of thanks and invitation toquestion.

Introduction :

The introduction to presentation does the job of the preface to a book. It catches the attention of the audience, tells them the topic and purpose, develops trust among them. One can begin by greeting followed by a question, a quotation, a starting statement, an anecdote or even a video or audio dip to grab the attention of the audience. After that, one should clearly and precisely state the purpose of the presentation. Before going to the actual presentation, one must speak out phrase or question stating transition.

Main Body :

Depending on the topic, and the introduction, we can choose from any of the following patterns to organize the main body of the presentation.

01. Chronological : The pattern can be used for organizing points that can be arranged sequentially. The entire presentation can be arranged chronologically. This method is useful for the topics like "The changing face of the Earth", "fustory of sports"etc.

02. Categorical : This is one of the easiest and most commonly adopted patterns for many topics. The entire presentation can be divided into various topics and subtopics arranged on the basis of subordination and co-ordination. For example "The role of advertisement" "environmental protection".

03. Cause and Effect : This method can be used whenever a "cause and effect" relationship exists. One has to explain the causes of the situation and then focus on the effects. e.g. "Impact of Cinema on children", "Internet – boon orbare".

04. Problem-solution : There, the presentation is divided into two parts. In the first part, one describes and analyses the problems. After the analysis, he moves to the main objective one the presentation that is to suggest or propose a solution to the problem. It is a very helpful and effective way of persuasivepresentation.

05. Supporting material : Solid ideas do not always impress the audience we need to back up our well organized points in a way that makes the audience notice, understand and accept our message. The supporting material includes definition, examples, statistics, analogy (comparison), and testimony (quotes)

Question : Nuances of Delivery of presentation / Modes of delivery of presentation.

Ans. If delivered effectively and efficiently, presentations can capture the audience's attention without the risk of being shuffled aside. Even a dull or drab topic will turn out to be interesting if presented well. It is not enough to have something to say but we must know how tosay.

There are four modes of presentation.

(1) Extemporaneous (2) Manuscript (3) Impromptu (4) Memorization

(1) Extemporaneous:

Extemporaneous presentation is the most popular and effective method when carefully prepared. For this, we must make notes beforehand and rehearse our presentation. There is no need to born every word and line by rote. After a through presentation, it sounds spontaneous to the audience. Careful planning and rigorous practice allow to organize the reading material effectively and meticulously.

Advantages:
(1) As we have enough time, we can present the theme is the best possible and structuredway.
(2) With through preparation, we can feel secure and carry out our responsibility with self-confidences and assurance. We can be flexible in our use ofEnglish.
(3) Supporting material helps us to present our views clearly. We can use quotations, illustration, statisticsetc.
(4) Our presentation sounds natural and spontaneous and allows us to build rapport with the audience.
(5) It makes as movefreely.

Disadvantages:
(1) If the preparation is inadequate, we can get lost and find ourselvesuncomfortable.
(2) If we rely too much on note cards, the speech will lose itsspontaneity.

(2) ManuscriptMode:
In manuscript mode, material is written out and we are supposed to read it aloud verbatim. We don't have to remember the speech. But then, we should be wise enough not to attempt to read the speech until we have become a proficient reader. For effective use of this mode, we should go through the material several time beforehand so that we become absolutely familiar with the content.

Advantages:
(1) It is permanent and accurate record of whatever we have tosay.
(2) There is no chance of tampering with the facts andfigures.
(3) The material is organized systematically. We have to just remember the step-by-step development of the maintopics.
(4) Language gets polished because we can write and re-write our material till oursatisfaction.

Disadvantages:
(1) Since we are reading from the book, we get less time to make propereye-content.
(2) We cannot talk to them, which disturbs therapport.
(3) Adaptation becomes difficult, we cannot twist our material as and whenneeded.

(3) ImpromptuMode:
As the word suggests, the impromptu mode is used when we have to deliver and informal speech without any preparation. We should not panic or babble something in an unmethodical way. Instead, we should calmly state our topic and then preview the topics to be made. It must be supported by whatever examples, quotes, anecdotes we recall at that time. We should be as brief as possible.

Advantages:
(1) We sound natural because we do not get enough time to make any elaboratepreparation.
(2) Wegetachancetoexpressourselvesirrespectiveofwhatothersthinkorsayaboutthattopic.
(3) We are spontaneous and say what we want, not what we shouldsay.

Disadvantages:
(1) Because of shortage of time, the presentation lacks organized development ofideas.
(2) There is no supplementary material to substantiate thespeech.
(3) The chances of rambling are very high various point may remainincomplete.

(4) There is a frequent use of vocalizedpauses.
(5) If the speaker does not have proficiency, such a presentation will turn out to be afailure.

(4) MemorizationMode:

Memorization method is very difficult for most of us. Only a handful of us can memorize the whole speech. Generally, we memorize the main parts and key words, rest of the presentation is done on one's own. Speech is written out beforehand, then committed to memory, and finally delivered from memory.

Advantages:
(1) It is very easy for such speakers to maintain eye-contact with theaudience.
(2) The speaker can make appropriate use of non-verbal communication and add extra values to thespeech.
(3) It is possible to finish the speech in extratime.

Disadvantages:
(1) Memorization requires too much of thetime.
(2) The presentation can turn out to be dull andmonotonous.
(3) Our mnemonic (memory) skill will fail, if it is not rehearsedadequately.
(4) No flexibility or adaptation ispossible.

Question: How will guide in brief about effective presentation strategies ? (Tips for effective presentation)
(1) Be clear with thepurpose.
(2) Know youraudience
(3) Keep enough time forpreparation.
(4) Develop interest in the topic through the reading from varioussources.
(5) Collect adequate material and select the content as per audience, purpose andtime.
(6) Organize and make outline with the main points andsub-points.
(7) Structure your presentation in 3 parts -= Beginning, middle andend.
(8) Prepare power point slides keeping in mind, one minute, oneslide.
(9) Keep minimum animation.
(10) Give illustrations such as graphs, maps, drawings, tablesaccurately.
(11) Familiarize yourself with venue and availableequipment.
(12) Arrive early and check arrangement and compatibility with computer and PowerPointslides.
(13) Think of all positive qualities in you and feelconfident.
(14) Look at the audience for a fewseconds.
(15) See that introduction goessmooth.
(16) Use transitions effectively for smoothflow.
(17) Explain each slideeffectively.
(18) Maintain eye-contact with each member and use non-verbal signals positively andeffectively.
(19) Show confidence through posture, gestures and eyecontact.

GROUP DISCUSSION

Q.1 What is group communication ? what are its purposes?

Ans. Teamwork and group communication form an integral part of most organizations that embrace the concept of an open organizational climate and participativemanagement.

Discussions play a crucial role relationship building and decision making. The members of an organization may communicate in groups to achieve any of the following purposes:

(1) Share and exchange information andideas.
(2) Collect information or feedback on any project policy,scheme.
(3) Arrive at a decision on importantissues.
(4) Solve a problem concerning the organization as awhole.
(5) Discuss issues involving the group itself or for the benefit of a largeraudience.
(6) Elicit feedback upon any work undertaken or researchperformed.

- Group Discussions:
  In group discussions, a particular number of people (3 to 8) meet face to face, through free oral interaction, develop, share and discuss idea. Group discussions are widely used in many organizations for decision making and problem solving. They are also used as a personality test for evaluating several candidates. In group discussion, group behavior, group orientation, orderly conduct, time sharing, involving everyone, respecting others view points, co-operation etc are measured.

  The following points will help us to speak effectively in a GD.

1. Grabtheopportunitytospeak,ifyouhaveagoodunderstandingofthetopicofdiscussion.
2. Listen patiently to others and then react to theirviewpoints.
3. Speak clearly and audibly so that ever yare hears andunderstands.
4. Ask for clarification, ifnecessary.
5. Facilitate contribution fromothers.
6. Use statistics and examples to justify a viewpoint.
7. Avoid talking to only one or two persons in agroup.
8. Assume an impersonal tone, Treat all members as fellowparticipants.
9. Be assertive without being aggressive. Be humble without beingsubmissive.
10. Speaksoloudasyoucanbeheardand speakoutastrongpointinfistmarketlikesituation.
11. Conclude objectively by briefly presenting the importantpoints.
12. The language used must beaccurate.
13. A profound topic needs careful choice of words, definition and sentenceconstruction.
14. It is important to be accurate with ourarticulation.
15. We must sound natural as we would in an informalconversation.

Q.2 What is organizational GD ? What are its strategies?

In organizations, GDs are mainly used for group decision making. Members of an interacting group talc the responsibility of explaining their ideas and arriving at consensus.

It helps to reduce friction to a considerable extent. The following strategies may be used.

1. Brainstorming
2. Normal GroupTechnique
3. DelphiTechnique

01. **Brainstorming :** Brainstorming is a method for generating a variety of idea and perspectives. The people involved in brainstorming should ideally come from a wide range of disciplines and have divergent social and cultural backgrounds. The more diverse the group, the more likely it is to generate unexpected insights, ideas and connections and hence even unthoughtful of and novel solutions to problems. A typical brainstorming session follows the steps given below:

(1) A group of six or twelve people sit around atable.
(2) The group leader stats the problem in a clearmanner.
(3) Members then suggest many alternatives in a given time and write them on black board, white board orpaper.
(4) No criticism is allowed, an all the alternatives are recorded for discussion andanalysis.

There are two types of brainstorming techniques.

1.1 **Story Boarding :** In story boarding, participants identify major issues and brainstorm each of them. It is often used to solve complexproblems.

1.2 **Lotus Blossom :** In lotus-blossom, a core thought is presented and participants provide eight areas surrounding it like the petals of a lotus blossom. Then each idea becomes a core thought to be surrounded by a further set of eight ideas and so forth, until the participants can no longer generate ideas or decision isreached.

02. **Nominal Group Technique :** The nominal group techniques restrict discussion or interpersonal communication during the decision making process and hence the term "Nominal group". In other words, although group members are all physically present, they operate independently. The problem is presented and then following steps takeplace.

(1) Members meet as a group, but before any discussion takes place, each member writes down his own ideas independently andsilently.
(2) Each member takes his / her turn, presetting a single idea till all the ideas have been presented or recorded. No discussion takes place until all ideas have beenrecorded.
(3) Now the group discusses the ideas for clarity and evaluatesthem.
(4) Each group member silently and independently rank-orders theideas.

03. **Delphi Technique :** The Delphi technique is a more complex and time consuming alternative in group decision making. it is similar to nominal group technique except it does not require the physical presence of the group members. In fact, this technique never allows the group members to meet face to face. The following are the characteristics of DelphiTechnique.

(1) The problem is identified and members are asked to provide potential solutions through a series of carefully preparedquestionnaires.
(2) Each member anonymously and independently completes the firstquestionnaire.
(3) The results of the first questionnaire are compiled at a central location, transcribed and reproduced.
(4) Each member receives a copy of theresults.
(5) Based on the results, another questionnaire is prepared and the members are again asked

for their solutions, as the compiled results typically trigger new solutions or cause chanages in the originalopinions.

This technique insulates the group members from the undue influence of others. As it does not require the physical presence of the participants, it can be used for decision making in geographically scattered groups. But it has its own drawbacks, it is extremely time consuming. When a speedy decision is needed, it is not applicable. It does not develop a rich array of alternatives.

Q.3 Describe GD as **a** part of selection process.

A group discussion conducted for the selection of candidates for a job for admission to a professional institution is a well-formulated tool for judging the personality of candidates, their communication skills, knowledge and their ability to work as a team.

- Characteristics of GD as **a** part of selectiontool:

The candidates are given a topic or case for discussion. Normally, groups of 8-10 candidates are formed into a leaderless group and are given a specific situation to analyze and discuss within a given time.

The group can be asked to sit in a circular, rectangular, or U shaped arrangement. Either the group members choose the seats or they are allotted. The selection panel is made up of technical executives and human resource executives. They observe and evaluate a person. They observe the group directly or indirectly. They provide some time to the candidates over the topic or case. Each candidate is supposed to voice his/her opinion and offer supporting or counter arguments.

- Evaluation andAnalysis:

The four components generally evaluated and analysed in GD are as follow.

(1) Knowledge.
(2) Communicationskills
(3) GroupBehaviour
(4) LeadershipSkills.

(1) Knowledge **:**

The depth and range of knowledge as well as analytical and organizational abilities of the candidates are judged. One should be able to grasp the situation with a wide perspective. It will make the topic discussed wider and more interesting. As a member of a group, one is expected to contribute substantially to the discussion. The originality of ideas, knowledge and initiative and approach to the topic or case contribute to one's success. The greater our knowledge of the subject, the more interested, enthusiastic and confident, fluent and forceful we will be. It must be relevant, rational, convincing and appealing to the selection panel. In GD, it is vital to be creative and to come up with divergent and off-beatsolution.

(2) CommunicationSkills:

During a GD, communication skills will be assessed in the terms of the following.

2.1 ActiveListening
2.2 Clarity of thought andexpression.
2.3 AppropriateLanguage
2.4 Aptness of bodylanguage

2.1 Active Listening : Listening is as important as speaking in GD. Unless we listen to others, we won't be able to continue the discussion. It is easy for the panelist to identify the poor listeners as they miss the thread of continuation of ideas. They may pause questions at the end to identifyit.

2.2 Clarity of Expression: The panel's selection of a candidate heavily on one's ability to convince others through correct use of tone, voice and articulation. It is not sufficient to have ideas, but they have to be expressed effectively. If tone is abrasive (biting), ti may hurt the self-esteem. Clarity of speech with lively and cheerful voice with appropriate modulation will be appreciated. Slang, jargon and artificial accent must beavoided.

2.3 Appropriate Language: The language used should be accurate and free of grammatical errors. In case of accidental grammatical error, do not pause to correct yourself, others may seize the discussion from you. The language should be direct, clear and precise, with ideas flowing in an organized manner. Do not use long sentences, rather simple and unambiguous sentence. Using jargon, high sounding words or ambiguous expressions may project an individual as a showoff.

2.4 Appropriate Body Language: Our gestures and mannerisms are more likely to reflect our attitude than what we say. Panelist to keenly observe the body language of the candidates and give weight age to this aspect in theirassessment.

Emotions such as anger, irritation, frustration, warmth, excitement, boredom, defensiveness and competitiveness are all conveyed through body language. The panelists observe individual's appearance, frequency of eye-contact, postures, gestures and facial expressions. We should be as natural as possible, showing our self-confidence.

03. Group Behavior (Team Spirit) : An individual group behavior is reflected in his/her ability to interact with other members of the group on brief acutance. Emotional maturity and balance promotes good interpersonal relationships. We should be people centric and less ego-centric. Participating in GD involves co-ordination and co-operation among the various members. Our success in GD depends on how well we play our role as an initiator, informer, illustrator, leader, coordinator andmoderator.

The ability to analyse a problem and persuade others to see it from multiple perspective without offending group members is an important trait. We should disagree in a modest and amicable manner, using valid argument and appropriate verbal and non-verbal means.

04. Leadership Skills: The success of any team depends to a large extent on its leader. Although there is no appointed leader in recruitment GD, a leader emerges as the discussion proceeds. The candidate who possesses both functional and coordinating abilities will emerge as a leader. Functional abilities involves knowledge, mental and physical energy, emotional stability, objectivity, communication skills, integrity and emotionalintelligence.

Co-ordinating ability involves group adaptability and group motivation. Group adaptability means to adjust with other individuals and bind the group in a single unit. Group motivation means the ability to motivate and influence others, to bring out the best participation from the members.

Leadership means constructive participation, rational arguments, convincing other participants building support in the group, logically weakening the opponent's view-point. There are 3 types of leaders, authoritative, amiable, and democratic of course, the panelist will prefer the democratic leaders.

TELEPHONIC CONVERSATION AND ETIQUETLTES

Sitting anywhere in the world, we can share information, make request, discuss business matters and be in touch with our family, friends and colleges over the phone. With the advancement in technology, the telephone – fixed line or mobile has become an essential mean of communication in today's competitive world.

In a telephonic conversation, the two parties cannot see each others facial expressions and other aspects of body language. Therefore, it is important to include correct tone and articulation in their voices so that they achieve purpose of their communication.

Therefore, we must follow all the conversation etiquettes during telephonic conversation.

01. Begin with a polite greeting and confirm the name of areceiver.
02. If you are a caller, ask the other person if that is the convenient time to talk withhim.
03. If you are a receiver on behalf of a company, give your name your organizations name, as soon as your pick up acall.
04. Be clear and precise in your expressions and use pleasant tone of voice whilespeaking.
05. Do notshout.
06. Don't useslangs.
07. Do not interrupt the caller while he/she isspeaking.
08. If you are transferring the call to somebody else, please ask the caller to holdon.
09. Listen to the caller patiently and get any unfamiliar termsclarified.
10. Before you call up anybody, think what and how to discuss so that you stay focused during conversation.
11. Do not slam the instrument when the call is complete. Place itgently.
12. Do not eat or drink whilespeaking.
13. Do not talk to others around, while speaking onphone.
14. Do not speak too fast or too slow. Maintain properrate.
15. Reduce the background noise, ifany.
16. Pick up the phone as early as possible, do not allow it to ring for a longtime.
17. If you are a caller, ask the receiver, "If it is a good time to talk to you?" "Can I speak to you for five minutes?"
18. Always keep a pen and note pad while takingcalls.
19. Be courteous andenthusiastic
20. Thank the caller before ending thecall.

INTERVIEW SKILLS

Q.1 What is interview? What are its objective andtypes?

An interview is a psychological and sociological instrument. It is an interaction between two or more persons for a specific purpose, in order to assess his or her suitability for recruitment, admission or promotion.

Objective of Interviews.

(1) To select a person for a specifictask.
(2) To monitorperformance
(3) To collectinformation
(4) To exchangeinformation
(5) Tocounsel.

Types of Interview:

Depending on the objective and nature, interviews can be categorized into the following types.

(1)	Job	(6)	Counseling
(2)	Information	(7)	ConflictResolution
(3)	Persuasive	(8)	Disciplinary
(4)	Exit	(9)	Termination
(5)	Evaluation	(10)	Media

Comparing the involvement and contribution of the interviewer and interviewee, an interview can be divided into 3 types.

01. Telling : In a telling interview, the flow of communication is almost entirely one way downwards. It is used most effectively in a directing, time constrained situation; but it can cause hostility and defensive behavior when the employee does not have the opportunity toparticipative.

02. Telling and Listening : In a telling and listening interview, more feedback from the subordinate is allowed, but the interviewer still maintains control over the flow ofcommunication.

03. Problem-solving : In a problem solving interview, the flow of communication is two way. The bulk of communication is upwards, a genuine rapport is established, ideas are pooled and exchange facilitated.

Types of Interview:

01. JobInterview:

In job interviews, the employer wants to learn about the applicant's abilities and experiences, and the candidate wants to learn about the position on offer and the organization. Both the candidate and the employer hope to make a good impression and to establish rapport. In the initial round, job interviews are more formal and structured. But later, interviews may be relatively spontaneous as the interviewer explorers the candidates responses.

02. InformationInterviews:

The interviewer seeks facts that bear on a decision or contribute to basic understanding. Information flows mainly in one direction; one person asks a list of questions that must be covered and listens to the answers supplied by the other person. e.g. doctor patient, boss subordinate.

03. Persuasive Interview:
One person tells another about a new idea, product, or service and explains why the other should act on his/her recommendations. Such interviews are generally related to seling, a proposal conviction etc. They require skill in drawing out and listening to others as well as the ability to impart suitable information, adapted to the situation.

04. ExitInterview:
In exit interviews, the interviewer tries to understand why the interviewee is learning the organization or transferring to another division or department. A departing employee can often provide insight into whether the business and human resource is handled efficiently or there is a scope for improvement. Encouraging the employee to focus on events or processes rather than on personal issues, will elicit more useful information for the organization

05. EvaluationInterview:
A supervisor periodically gives an employee feedback on his/her performance. The supervisor and the employee discuss progress towards predetermined standards or goals and evaluate areas that require improvement. They may also discuss goals for the coming year as well as employee's long term aspirations and general concerns.

06. Counseling Interview:
A supervisor talks with an employee about personal problems that are interfering with work performance. The interviewer is concerned with the welfare of both, the employee and the organization. The goal is to establish the facts, convey the company's concern, and steer the person towards a source of help. Only a trained professional should offer advice on problems such as abuse, marital tension, financialtrouble.

07. Conflict resolutioninterview:
In conflict resolution interviews, two competing people or groups of people with opposing points of view explore their problems and attitudes. The goal is to bring the two parties closer together, cause adjustments in perceptions and attitudes, and create a more productiveclimate.

08. DisciplinaryInterview:
In disciplinary interview, a supervisor tries to correct the behavior of an employee who has ignored the organizations rules and regulations. The interviews tries to get the employee to see the reason for the rules and to agree to comply. The interviewer also reviews the facts and explores the person's attitude. Here, neutral observations are more effective than critical comments because emotional reactions are likely to take place.

09. TerminationInterview:
A supervisor informs an employee of the reasons for the termination of the latter's job. The interviewer tries to avoid involving the company in legal action and tries to maintain a positive relationship with the employee. To accomplish these goals, the interviewer gives reasons that are specific, accurate and verifiable.

10. Media Interview:
Media interview is conducted to disseminate information to the public on the lifestyle and achievement of an individual / business or on the new policies introduced by the government. The media conducts interview with people in power and also experts to get their views, interpretations and more information on the step taken by the government. It can help people to get quick update

on the issue.

Q.2 Write a detailed note onJob-Interview

Job interviews are conducted to see the suitability of the candidate for the post. They can be classified into four major categories.

(1) Campus Interview
(2) On-siteInterview
(3) TelephoneInterview
(4) Video conferenceInterview

(1) CampusInterview:

Campus interviews are the interviews conducted at the campuses of colleges. The companiesinformthe

Negotiation Skills

Negotiation is the process in which two or more individuals or groups having both common and conflicting goals, state and discuss proposals for specific terms of a possible agreement. It generally takes place between companies, groups, and individuals because one has something that other wants.

Whenever we attempt to influence another person through an exchange of ideas, or something of materials value, we are negotiating. The aim of a negotiation is to explore the situation to find a solution that that is acceptable to both parties. In this process, there is ample opportunity to learn and understand each other better and can create strong relationship.

Six steps of Negotiation:-

01. Getting to know oneanother:
- It is helpful to assess those involved in the negotiation before itbegins.
- Weshouldbeginbyobserving,listeningtotheminarelaxed,friendlygetprofessionalmanner.

02. Statement of goals andobjectives:
After the opening, the negotiation flows into a general statement of goals and objectives by the involved parties specific issues should not be raised at this time. Only a positive statement, favorable to all should stated to break the ice. The person making the opening statement should wait for the feedback from another party to understand their goals and objective the similarities and dissimilarities should be understood here. One must not be hostile or defensive. The atmosphere of co-operation and mutual trust should bemaintained.

03. Starting theprocess:
Until both the parties have presented their issue, the direction of discussion cannot be predicted. Some negotiations are complex and have many issues to resolve. Also individual issues may vary in complexity. Therefore, sometimes, the solution to one is contingent to solution to another. On the other hand, there may be can attempt to separate issues to make them mutually exclusive. But no issue is considered resolved until all have been resolved. A skilled negotiator is one who checks issues closely whether splitting or combining the issues is advantageous.

04. Expression of disagreement andconflict:
A good negotiator never tries to avoid disagreement or conflict, because he realizes that it is a successful phase of give and take. If these disagreement and conflicts are handled properly, it will

bring the negotiator closer. Good negotiators will work to get as much as possible, yet understand that compromise may be necessary for the goals to be achieved. This process involves stress. It is not the test of power, but understanding, what people need. It should lead to possible areas of agreement and compromise.

05. Re assessment andcompromise:
At some point, one party will move towards compromise. At this time, the other negotiator should listen carefully tosee an attempt to compromise is being offered. His response should be carefully slated. 700 quids and hostile response may not yield any success in giving or taking.

06. Agreement in principle orsettlement:
When agreement is reached, it is necessary to affirm it. This must be done by placing the agreed terms in writing. If possible, this should be done while the parties are together, so that they can agree on that language. This will reduce the danger of misunderstanding later.

Expressions used in formal negotiations:

01. I would like to proposethat........
02. Well, don't you think we should........
03. How about if we do this bychanging........
04. You definitely have a point here,but........
05. Yes, I take your point, but let's think of itsimplementation........
06. Let me just put it in anotherway........
07. To be more specific, I think, the data areinadequate........
08. Can we run through, what we haveagreed?
09. So, the next stepsis........
10. As long as you........ we agree to........
11. That's not acceptableunless........
12. We hope that you can see our pointthat........
13. It has been a very useful and productivemeeting.
14. May we brief our objectives before webegin?
15. Inourcase,itisconfidentialinformation,sorry,Icannotshare........
16. Ifsoundsveryinterestingtome,canyoupleaseelaborateitlittle?
17. I have a problem withthis........
18. Let's discuss the lastissue........
19. If we look at it from another angle, it sounds moreinteresting........
20. I think it time to draw a formalcontract.

Expressions used in Informal negotiations.

01. You are tooexpensive.
02. I can't affordthat.
03. Bereasonable.
04. How much?what?
05. I don't think this ispossible
06. Pass, nosale.
07. You are quoting toohigh
08. I have never seen such a high price anywhere for thistype...
09. It's notpossible

10. We can't agree with youridea.
11. Don't look into your problems alone. Look into ours aswell.
12. Did you foresee theconsequences?
13. Have you thought of the difficulties in implementingthis?

Effective Technical Communication - 3130004

Report Writing

Q.1 Definition & Importance of Report

Definition:

A report is usually a place of factual writing, based on evidence, containing organized information and/or analysis of a particular topic.

It is a major form of technical/business/professional communication. A person transmits certain facts, ideas or suggestions useful for another person through a report.

Importance of reports :

A report is a basic management tool used in decision making. Since the top management cannot keep a personal watch on all the organizational activities, they heavily depend on reports for decision making.

The following list gives an idea of importance of report writing.

(1) A report is the only tangible product of a professional. It conveys to others the efficiency with which they carried out theirassignments.
(2) Based on the information presented, analysis discussed or the suggestions given ,the administrators can make important decisions and solve seriousproblems.
(3) A report helps the authority in planning new ventures and in evaluating men and material, the quality and capability of aperson.
(4) A report is an important mean of information given within and outside theorganization.
(5) A report solves as a measure of growth, progress and success of an organization. The success of any organization depends on the quality and quantity of information flown through its personnel in the form of oral or writtenreports.
(6) A report serves as a valuable repository of information. It is preserved for a long time, so that they can be referred to as and whenneeded.
(7) A report reveals gaps in thinking. It can given the recipient an idea whether the writer had thought and proceeded logically and conducted in depth study ornot.
(8) A report reveals the skills of a writer, like ability to organize, evaluate and communicate with greaterability.

Q.2 Objectives of Reports (Purpose ofreports).

(1) To present a record of accomplished work (projectreport).
(2) To record an experiment (primary research report / laboratoryreport)
(3) To record research findings or technical specifications (A report on the details of a new product).
(4) To document schedule, time-table and milestones. (a report on a long-termplan)
(5) To document current status (an inspectionreport).
(6) To record and clarify complex information for future reference. (A report on policies and procedures.)
(7) To present information to a large number of people (an annualreport).

(8) To present organized information on a particular topic. (A report on working of various divisions).

(9) To recommend actions that can be taken to solve certain problems. (Recommendatory report).

Characteristics of a Report :

01. Precision:

Precision gives unity and wherence to the report and makes it a valuable document. It clearly reflects the purpose, which determines the format, content, sequence and word usage in a report.

02. Factual details:

The report should be very detailed and factual. It should meet audience's expectations. Since reports invariably lead to making, scientific accuracy of the fact is very essential. Inaccurate facts may lead to disastrousdecisions.

03. Relevance:

The facts presented in a report should not only be accurate but also relevant. It must lead to central purpose. It is equally essential that no relevant information is excluded. Irrelevant facts make a report confusing while exclusion of relevant material makes the report incomplete.

04. Reader-orientation:

A good report is always reader oriented. It is necessary to know who the readers will be, whether a layperson or technical expert, as it will change the purpose and language of the report.

05. Objectivity of recommendation:

If recommendations are made at the end of the report, they must be impartial and objective. They must not reveal any self interest on the part of a writer. They must come as a logical conclusion to investigation and analysis.

06. Simple and unambiguouslanguage:

The report should be clear, brief and grammatically accurate. It should be written in simple, unambiguous language.

6.1 Clarity : Clarity depends on proper arrangement of facts. they should make their purposes clear, define their sources, state their findings and finally make necessary recommendation. They should divide the reports in headings, sub-headings to achieveclarity.

6.2 Brevity: Brevity means shortness. But brevity should not be achieved at the cost of clarity or completeness. One must include everything significant and yet bebrief.

6.3 Grammatical Accuracy: The grammatical accuracy of language of good report is of fundamental importance because they invariably lead to decision making. Faculty construction of sentences makes the meaning vague andambiguous.

07. Specialformat:

The technical report uses a rather involved format including cover, title page, table of content, list of illustrations, letter of transmittal and appendices.

08. Illustrations:

Most technical reports contain illustrations, which may be tables, graphs, maps drawings or photographs.

09. Homogeneity:
A report should deal with one main topic. All the sections of the report should focus on that topic.

10. Documentation:
A good report should acknowledge source of information in appropriate manner.

Types / Categories of reports.
Depending on purpose, frequency, mode of reporting, length, approach and audience, reports can be classified as below.

01. Purpose — Informative / Analytical
02. Frequency — Periodic / Special
03. Modeofpresentation — Oral / Written
04. Length — Long / Short
05. Approach — Informal / Formal
06. Audience — Individual / Group

1.1 Informative Report:
As the name suggests, it entails provision of all details and facts pertaining to the problem. Such details should be entrusted in chronological order. It should be written in systematic and coherent manner. The sections should be simple and self-explanatory. Supporting data, appropriate order and good presentation style are important in writing Information report.

1.2 AnalyticalReports:
It is also known as an interpretative or investigative report. It analyses the facts, draws conclusions and makes recommendations. The below mentioned steps are followed in this analytical method/problem solving method.

(a) Drafting problemstatement.
(b) Evolvingcriteria.
(c) Suggesting alternatives andevaluation.
(d) Drawing conclusion and makingrecommendations.

Analytical report may follow any of the two patterns mentioned below.

(a) InductiveMethod:
An inductive ordering follows a simple, logical arrangement in which one proceeds from the sensible singular to the universal or simply from the known to unknown. It is directed from specific example to general or universal statements.

(b) Deductive Method:
A deductive ordering proceeds from the unknown to the known. Universal truths are taken as the formulation point for the problem. The various alternatives are suggested, evaluated and conclusions drawn, keeping in mind the original problem stated.

2.1 Periodic Reports **:** Periodic reports are either information or analytical in their purpose. As they are prepared and presented at regular, prescribed intervals in the usual routine of business, they are called routine reports. They can be submitted annually, semi-annually, quarterly, monthly, fortnightly, weekly and even daily. Progress reports, inspection reports, annual reports and sales reports come under thiscategory.

2.2 Special Report: Special reports are related to a single occasion or a situation. A report on feasibility of a new branch, a report on the unrest among the staff, a report on causes behind fire incidents are special reports. They deal with non-recurrentproblems.

3.1 Oral Report: An oral report is simple and easy to present. It communicates an impression or an observation. In oral reports, immediate feedback is possible. It does not add to the permanent records of information. The listener has to comprehend it as immediately as it is presented. It may be mixed up with irrelevant facts and overlook the important ones. It cannot be referred to again and again as it has less professionalvalues.

3.2 Written Reports: A written report is preferred above the oral one. In written report, immediate feedback is not possible. It contributes to permanent record of the organization. The receiver can ponder over the reports and can understand at his own pace. The written report is more accurate and precise, further, it can be edited, reviewed, stored and retrieved. It has more professional values.

4.1 Short reports: Long and short reports are classified based on length when there is a definite purpose, short reports are suitable as they are precise and concise. There structure is not much elaborate and focus is not on format. Short report may include memo or letter report. A short report usually begins with an organization followed by the information and thenconclusion.

4.2 Long Report: Long report places a great emphasis on the format. It has got elaborate structure and consists of abundant information. It is properly organized and analyzed. It is usually produced after detailed research and data collection. This can be further classified as informative, analytical and recommenderreport.Longreportalsoincludesalotofillustrationstosupportthediscussion.

5.1 Formal Report : The nature and format decide if the report is formal or informal. A formal report is the result of proper survey and investigation and is presented in a prescribed format. It is prepared as per the requirement of the organization. It has all the elements of reports, rules of writing report, formal language. These reports include annual reports, auditor's reports, policy reports, interpretive reportsetc.

5.2 An informal report is usually transmitted from person to person. It can vary from a few lines to several pages. It may include raw-data that can be used at the time of need. It is generally targeted at a few people. The memo report is an example of an informalreport.

6.1 Individual reports & Group reports: When a report is classified based on the target audience, it is classified as individual and group report. A report presents the information in an organized manner is the most usable form to a set of people. It may describe the series of event to the concerned people. However, some reports are of concern only to an individual and are not meant for the general reader. These reports are of more interest to the top authority than anyone else. These reports are called individual reports. The format and design of these two reports may not vary much but for the individual reports, personal touch can beadded.

FORMATS :

A report may have any of the following formats.

01. Manuscript
02. Memo
03. Letter
04. Pre-printed

01. Manuscript format **:** This is the most commonly used format for reports and is generally used for formal reports. It can be of few pages to several pages. As the length increases, these reports include more elements like abstract, summary, appendix, glossary and so on. It has predatory parts, main text, supplementary parts with optional elements if needbe.

02. Memo **:** A report sent to somebody within the organization will be in a memo format. The analysis, conclusion, and recommendations are included in the main text part of the memorandum. It is used to handle routine business matters such as passing information from one department to another, making changes, alerting employees, solving a problem etc. It is a permanent record of the internal operations of an organization and is quite similar to a letter report. It is generally shorter than a better report and adopts a matter of factstyle.

03. Letter **:** While sending short reports of a few pages to outsides, one can opt for a letter format. Besides all the routine parts of a letter, these reports may include headings, illustrations and footnotes. All parts of a business letter re used here except the inside address. The style of writing is factual, but it does have a personal touch in the use of pronouns and courteous consideration. Facts are pointed out as benefits to the readers, material is broken down and terminology is within the readers range ofunderstanding.

04. Pre-printed Form **:** Reports containing routine and periodical matter may be well-written in a prescribed form by the organization. All one needs to do is to fill in the blanks in a pre-printed form. A report presenting the performance assessment of an employee, an interim project report, equipment condition in a laboratory may be presented in a pre-printedform.

PRE-WRITING THE REPORT **:**

Planning for a report is as important as the process of writing itself. Enough time should be spent in collecting material, synchronizing details and ensuring that nothing has been left out. The various steps involved in report planning are as follow.

01. Purpose andscope
02. Audience
03. Sources ofinformation
04. Organizing thematerial
05. Making anoutline

01. Purpose and Scope **:** Purpose refers to the objective of the study while scope refers to the depth or extent of coverage unless is clear about the objective of the task, one will not be able to proceed in the right direction. It is the purpose and scope of the report which enables one to decide the amount of data to be collected, data collection method to be used, the quality and quantity of information to be included and methodology of analysis and arriving at thesolution.

02. Audience **:** "Audience" is the must important factor to be considered for planning, writing and reviewing the document. In general, the audience can be categorized into threetypes.

    2.1 Experts **:** Who know the theory and product insideout

2.2 Executives **:** Who make business, economic, administrative legal, governmental and politicaldecisions.

2.3 Non-specialists **:** Who have the least technical knowledge ofall.
It is important to analyze the audience in terms of the characteristics explained as below.

2.3.1 Background: One of the most important concerns is just how much knowledge, experience or training can one expects in his readers. It will decide the technical terminology to be used in reportwriting.

2.3.2 Needs and interest: While planning a report, one must know the audience's expectations form the report what do they want to read is equally important as what they don't want to read.

2.3.3 Other demographic characteristics: Age groups, types of residence, area of residence, gender, political preferences are various factors that might have an influence on the design and writing style of thedocument.

2.3.4 The following guidelines will help one to make **a** report morecomprehensible.
- To add information required by readers in order to understand thereport.
- To omit information your readers do nothad
- To add examples to help readerunderstand.
- To change the organization of yourinformation
- To use more or different graphics
- To add cross references to importantinformation.

03. Sources of Information: We need facts and ideas to accomplish the objection of a report. It may be found in company records, reports, bulletins, pamphlets, periodicals, library sources observation of some incident and collect the facts and ideas. We can conduct personal interview, circulate questionnaire to get the data for our report. Investigating the source of information is a kind of research which depends on length and importance of the report. There are two types of data. Primary data and secondary data Primary data are what a researcher gathers for a particular problem being addressed in the report they are:

- Personalobservation
- Personal and telephoneinterview
- Experimentaldata
- Surveys throughquestionnaire

Secondary data are:
- Internalrecords
- Directories, guides, statistical data, governmentalpublication.
- Databases such as bibliographic and numericdatabases
- Censuses
- Syndicated sources (infor. received from the researchorganization)

04. Organizing the Material **:** Depending upon the purpose, topic and audience, the material / data collected for our report in any of the followingways.
(1) The order ofoccurrence
(2) The order ofimportance
(3) A combination oforders.

4.1 The order of occurrence: It is also known as chronological order. Here, the data or events are presented in the sequence of their occurrence in time none of the parts are uniquely important. In some cases, the sequence is more important in terms of direction rather than time. Here movement is more important thantime.

4.2 Order of importance : When the matter/data collected are not of the same importance, we have to arrange them in ascending or descending importance. Generally, the descending order of importance is valid for informational reports. Where the reader is interested inthe

most important points. The ascending order of importance in report creates suspense and therefore, it is not appropriate for technical report writing. It is suitable for magazine articles and speeches, as they slowly get momentum.

4.3 Combination of order : This order is particularly useful in reports involving a double assignment. A combination of order of occurrence and order of descending importance is fairly common. It includes problem, solution, recommended changes, significance of the topic gathering of data and theirarrangement.

4.4 Interpretation of information : Once the data are organized, the finding can be present. If the reader wants just information, only data will be sufficient but if he wants application of it, some extra efforts areneeded.

(1) Present the facts as theyare
(2) Do not give your ownconclusion
(3) Interpret only the availabledata
(4) Only analyse the comparabledata
(5) Be conscious of unreliabledata

05. Making an outline : An outline is a mechanical framework into which the collected information for the report can be titled in bits and pieces. It shows the direction in which one needs to proceed in writing the report. It requires a considerable amount of time, but it is always beneficial as it helps to save time in writing. The outline indicates the main topics and sub topics the report in the form of words or phrases. The following tips may behelpful.

5.1 Use of words and phrases : A carefully prepared outline becomes Table of Content. Hence, the words chosen for the heading should be well planned. Short constructions are known as topic headings, they are made up of one or two words which merely identify the topic of discussion. Long headings are known as talking headings and they frequently include prepositions that not only identify the subject matter but also summarize the material they cover.

E.g.

	Topic heading		Talking heading
4.	Marketing strategies	4.	creating strategies for marketing
4.1	Feedback	4.1	Collecting feedback from relevant areas
4.2	promotional efforts	4.2	Designing strategies for promotional efforts
4.3	Distribution network	4.3	Setting up a new distribution network

5.2 Use of parallel grammatical construction: Equal level heading should be parallel in structure so as to show similarity & consistency. If we use noun phrase to express an idea under one sub division, we should state other parties in noun phraseonly.

5.3 Avoid needless repetitions : Repetition of words should be avoided as it will result in monotonous writing. It will make our outline drab anddull.

5.4 Follow the principle of coordination and subordination : The outline indicates the level of each heading in the report, that is, how important each heading is. The closer a heading is to the margin, the greater is its importance in the report. As the headings more away from the margin, they become less important. According to the principles of co-ordination, all the main headings have the same importance with respect to their relation to the subject and also the seriousness ofdiscussion.

5.5 Follow a suitable numbering system : Either the conventional numbering system or the decimal numbering system can be used to mark the levels of heading in outline. The convention system uses Roman numerals for heading and Arbic numeral to show sub heading.

(1) I
A
B
1
2
(a)
(i)

(2) Decanal system:
1.
1.1
1.2
1.2.1
1.2.2
1.2.2.1

Question : Structure of a report. (Manuscript format) : The Clements of structure can be selected considering the followingparameters.

(a) usefulness : It refers to the need to including any particularelement.
(b) terms of reference : It refers to the specific objective of a report. These are the limitations which areinstructed.
(c) Existing practice : It refers to the existing practice whether some parts are required or can be omitted as decided by theorganization.

Total Twenty parts of a report can be broadly divided into following four categories.

01. PrefatoryParts
1.1 Coverpage
1.2 Titlepage
1.3 Certificate

1.4 Acknowledgements
1.5 Table ofcontents
1.6 List ofillustrations
1.7 Abstract

02. MainText
2.1 Introduction
2.2 Discussion
2.3 Conclusions
2.4 Recommendations

03. SupplementaryParts
3.1 Appendix / Appendices
3.2 References /Bibliography
3.3 Glossary

04. OptionalElements
4.1 Frontispiece
4.2 Letter oftransmittal
4.3 Copyright Notice
4.4 Preface
4.5 Summary
4.6 Index

01. Prefatory Parts **:** The prefatory parts of the report keeps the audience ready for reading a report. They reveal the topic, author, contents and also introduce the objectives, results, significance very briefly in theseparts.

1.1 Covert page **:** It not only gives elegant appearance but also protects from the damage to report. It gives a quick reference to the readers to know the topic and author of the report. Any specific information like confidential, number of the report can be mention on the top right or top left corners of thereport.

Confidential Report no. 112
Growth of Medic lfacilities

Prepared by
XYZ

Medical Council ofIndia
Aug. 2019

1.2 Title page **:** The title page is more or less similar to the cover page excep it contains the additional information like:

- Name and designation of the intendedaudience
- Name and designation of the approvingauthority

Growth of Medical Facilities

Prepared for

by

Approved by
ABC

Medical Council of India
Aug-2019

1.3 Certificate : Project reports and research reports require a certificate that guarantees the original contribution of the report writer. It contains the statement of the original work, place, date and signature of the project supervisor orguide.

Certificate	
This is to certify that the project entitled________________________ embodies the originalwork doneby___________ under my supervision.	
Date	Sign
Place	Name

1.4 Letter of transmittal :It is an optional element of a report. It serves the same purpose as that of a preface. It is less formal than rest of the report. It appears before the table of content. The following things are mentioned in the letter oftransmittal.

(1) Objectives / terms ofreference
(2) Scope
(3) Methodologyadopted
(4) Highlights of theanalysis
(5) Importantresults
(6) Significance of thestudies
(7) Suggestions
(8) Any other detail for betterunderstanding
(9) Acknowledgement

This type of letter typically begins with a statement such as "Here is the report you asked metoprepareon".Ifthereportdoesnothaveasynopsis,thelettermaysummarize findings, conclusions and recommendations.

1.5 Acknowledgements:

This is a list of persons whom we like to thank for their advice, support, assistance of any kind. It is necessary to acknowledge even smallest of the help, rendered by people. The following guidelines should be remembered.

1.5.1 Categorize the audience : courtesy, real help, emotional support, secretarialassistance.

1.5.2 Vary the expressions : Instead of "1thank_________", the following expressions will help, Thank aredueto_________,inadequatetoexpressmysincerethanks____________, our sincere appreciationto________, I am extremelygratefulto________,

1.5.3 Table of contents : It is generally titled, "contents", it helps the reader to locate a specific topic easily and quickly. A short report (less than 10 pages) does not have TOC. it is a frozen outline with the page numbers. It indicates the coverage, sequence and relative importance of things. It leads the reader directly to the page where they are interested. Depending upon thelengthandcomplexityofthereport,thispagemayshowthetoptwolevelsofheadings.

T O C

1.7 List of illustrations: Except tables, all other visual aids like graphs, maps, drawing, and charts are grouped as illustrations . It gives the titles and pages of all visual aids. When tables and figures are numbered separately, they should be listed separately. They can be listed on two separate pages also.

1.8 Abstract **:** An abstract gives the essence of the report. It is also known as synopsis in business reports. The length of an abstract in generally 2 to 5 percent of the report. A short report does not require a summary or abstract. Abstract is more appropriate from a specialist to a specialist communication, summary is meant for all readers. It does not allow abbreviations, acronyms or illustrations. Itincludes.

- objective
- main findings /accomplishment
- Significance.

Technical Proposal

Introduction:

Proposals are an important type of job related writing because their acceptance can lead to significant operational movements, new business additional jobs and safer working conditions.

Definition:

Proposals are written offers to solve technical problem or to undertake a project of practical or theoretical nature.

E.g. In today's competitive business environment, it's challenge to receive new orders, to get new customers, or to find new business partners. When a firm is considering several companies to outsource a major part of its operations to, it will evaluate the potential of these companies on the basis of their proposals to the firm, who casing their suitability for the purpose.

Also, It may include a bid on contract, or a business proposals to a government authority another company, or organization.

However, proposals have varied purpose with a wide or narrow scope.

01. To construct any building, bridge or highwayetc..
02. To sell property such as building, machine airplanesetc..
03. To survey areas for possible water sources, possible lightingetc.
04. To plan & construct airport baggage conveyor systems andall.
05. To modernize the office or any area of town orvillage.
06. To train international managers for work in foreigncountries.
07. To conduct the basic research before developing any factory in a foreign count within acompany.
08. To improve engineering performance within acompany.

Proposals, like reports, are valuable records of information in an organization. It attempt to win contracts for the company undertaking the project. It develops certain favorable & useful skills with such as communicative, persuasive an organizational skills. It also enhances the power of estimation, judgment and discrimination in the writer.

Now, we would see he types of proposals.

Types:

01. Sales proposals: It is also known as business proposal. They are sent out side the company to potential clients or customers. Sales proposals often talte quite different and creative directions like successfuladvertisements.

02. Research Proposals: It is usually academic in nature and mostly. Solicited professors, or the institutions for which they work, may submit a proposal to obtain a grant in response to a request or announcement from the government or other agency. A research proposal may even appear in a foreignlanguage.

03. Solicited Proposal **:** While preparing this kind of proposal, the company should remember that in all likelihood, it will have many competitors bidding for the contract to be successful at acquiring the contract, the company will not only have to present excellent reasons to the solicitor to follow its

recommendations but will also have to try to overcome the resistance from its competitors so, it has to meticulously follow the proposal requirements of the solicitor regarding the problem, the required solution,specificworktobedoneorequipmenttobeinstalled,formatoftheproposal,deadlinesetc.

04. Unsolicited Proposal: In this type of the proposal it needs to convince the reader that a company understands the receiver's problem and that it is qualified to solve the problemsuccessfully.

Characteristics:
Technical proposal whether they are sales proposals or research proposals it must be the blend of information, organization and reason.

- Also one should demonstrate before the decision maker in a way that their needs aresatisfied.
- Ought to be creative, near and moreattractive.
- Permit informality and personal approach in style to someextent.
- Keep in view the customer's convenience, financial gain and prestige. Also use direct unambiguous expressions.
- Anticipate any possible reasons for rejection and provide suggestions for overcomingthem.
- With all above characteristics one should have the idea of what is the propose what are the evidences one needs to give and how to demonstrate it, andetc.

Structure of proposals:
When proposals are solicited, the sections for inclusion are normally specified, but the problem of what information should be included remains. The following discussion is intended as a guide to the kind of information that should be included in formal proposals.

01. PrefatoryParts:
This segment gives an overall idea to the reader about the proposal such as highlights and coverage. This segment can have the following parts.

(i) Title Page: Most organizations specify the information to be included in the title page, some even provide special forms that summarize basic administrative and fiscal data. It includes the title, name of the person or company to whom the proposal is submitted, the name of the person submitting the proposal and thedate.
(ii) Letter of transmittal: This is a cover letter that accompanies with proposal. Whenever one submits the proposal to the government organizations after title page it comes. The topic and purpose are mentioned in the introductory section of the letter. The middle section contains the proposal highlights and the concluding section motivates the reader towards responding positively to theproposal.
(iii) Draft contract: When the proposal is accepted the original or rough draft may need changes in clauses such as terms of finance duration of the project and delivery schedule. Thus, the contract will be finalized & signed only after the proposal has beenaccepted.
(iv) Table of contents: When the proposal is long, then a table of contents isessential.
(vi) Executive Summary: It should be concise version of the detailed proposal. It should provide the reader a brief background need for taking up this project; summarize the objectives, the procedures which will be adopted and the outcome of the project. Budget figures are frequently omitted because proposal summaries or abstracts may receive wide distribution. The length of the summary is usually between 100 and 300 words depending on the complexity of theproposal.

02. Body of theproposal:

The main body of a technical proposal consists of the following five sections : introduction, technical section, management section, cost estimate andconclusion.

(i) Introduction:

(a) Problem & need: The problem statement clearly specifies what it intends to investigate and it should elaborate the existing facilities / procedure. It should explain why the problem exists and what benefits will come from the proposedresearch.

(b) Background:

- Previous work completed on identical or relatedprojects.
- Literature reviews on the subject, particularly the proposer's evaluation ofthem.
- Statements showing how the proposal will build on the already completed projects andresearch.

(c) Purpose: The objective or purpose of the proposal should be stated clearly. It is often stated in infinitiveform.

(d) Scope: This part defines the boundaries of the project. The proposal on a research study should clearly specify whether it will study one or more areas of a community, company, department or a particular problem. The writer of the proposal has an ethical and legal obligation to clarify the limits of his/her responsibility to theclient.

(e) Limitations: This section describes the restrictions over which the proper has no control, such as the no-availability of some classifiedinformation.

(f) Project team / personnel: Even some short proposals include a listing of the individuals who will work on the project, including project director / coordinator. In long proposals, such information is a must including a brief resume of eachindividual.

(g) Methods & Sources: It includes a discussion on the reliability of the sources from which the required information or data would becollected.

03. TechnicalCommunication:

(i) Procedures: How a brief discussion on technical requirements of the reader will me should be given.

(ii) Plan of attack: The methodology that would be adopted to carry out the project should be presented. This section can be further divided into small heading such as material, system overview, and installation details. So, the section presents the various solutions available for the problem and one that has been chosen, justifying the reasons for selectingit.

04. ManagementSection:

(i) Sequence of activities: This section facilitates to the client a systematic approach to the execution of the project with a clear picture of the phases of activities of the project and how long each phase willtake.

(ii) Equipment, facilities and products: It may elaborate upon the infrastructure by listing all the available equipment, products, facilities, etc and it also mention all those things that are necessary for thejob.

(iii) Human resources: In this section we can see the technical expertise the different personnel have to accomplish the project. Also one has to mention the names of the chief coordinator, co-investigators and the number of the persons who has the expertise in a particularsection.

05. Budget / cost estimate: It is mandatory for all proposals and should include such items as

materials and supplies, salaries, travel duplicating ,consumable items etc. also it is customary to include a budget justification section, in paragraph form, stating the various items of expenses the project would incur and also the potential sources of funding for theproject.

06. Conclusion:
This last section provides final opportunity to the provider to make necessarily change. This section is very brief, maybe one paragraph.

07. SupplementaryParts:
(i) Appendices **:** It is an optional part visuals and some pertinent letters of support can be added.
(ii) References: Those are usually a part of research proposals that requiredocumentation.

Style and appearances **:** One should keep in the mind that the physical appearance of the proposal makes an important non-verbal impression. In proposal, one should give equal importance of content as well as the general appearance, neatness, specific appearance of the table of contents, list of figures, title page, and consistency of style, completeness and professionalism. Compan logos are often found on each page colour and visual aids are used to add effectiveness. Also proposal should be attractively bound and protected by a plastic cover.

WRITING SKILLS

BUSINESS LETTERS

Business letters serve as a means to reach out to reach out to people not only within the locality and neighborhood but also in other cities and nations. They have become such an integral part of everyday business that one cannot think of running a business without a related correspondence.

Business letters assist in sustaining business relationships with other businesses and customers. When information is complex, it becomes the appropriate form of communication. They serve as a permanent record and valuable repository of information which can be referred to in future.

PURPOSE OF LETTER WRITING :

Each individual letter has a unique purpose. They can be :

- To inform, congratulate,enquire
- To order, request, collectdues
- To complain, make an adjustment, sell a product, service orscheme
- To apply for ajob.

STRUCTURE OF THE LETTER WRITING :

Most formal letters have following elements in them. They share a common structure. Different elements have specific positioning in a letter with a specific purpose attached to it. They are :

- Heading
- Dateline
- Insideaddress
- Salutation
- Body of theletter
- Complementaryclose
- Signature

01. Heading:
Heading in a business letter is also known as letterhead, head-address, crown of the letter and impersonal salesman of the company. Heading includes name and type of the company, full postal address, telephone numbers, email address and symbol or logo of the company. It should not include maxims or name of the branches. It has the potential to create a favorable impression therefore it needs to be designed with thought and imagination. The quality of the paper, size of the letterhead, type of fonts and spacing are to be considered carefully when the letterhead is being designed. It is written on the upper centre of the paper.

02. Dateline:
Dateline in a letter holds legal importance. In case of any dispute, it can serve as important evidence. In a full-block form of the letter, dateline is written on the left hand side and in the semi-block form of letter, it is written on the right hand side. Dates can be written in various ways but to avoid confusion, it is written in either of the following two ways.

    - American Method:
      In this method, month is written first in words followed by date in numbers and then year. E.g. June 10, 2010.

- British Method:
  In this method, date is written first in numbers followed by month in words and then year. E.g. 10th June, 2010.

03. Inside Address:
Inside address gives identity of the recipient of the letter. It is separated from dateline by one line. The inside address includes name and designation of the person to whom the letter is addressed. It should also include the full postal address of the company. The courtesy title should precede the recipient's name. The courtesy titles are Mr., Miss. or Mrs. If the marital status of woman is not known, we must use Miss for her. That also includes their achievement, designation and their honours with the name of the person.E.g.

The General Manager,
Lion Industries Limited,
No. 3A Sarthak Nagar,
Andheri,Mumbai-400001.

04. Salutation:
While writing a formal letters, it must be remembered that our letter carries our impression therefore we must address the recipient by his name rather than the title. In formal letters, salutation is followed by colon (:) and in less formal or informal writing, it is followed by a comma (,). The following are someexamples.

Dear Mr. Gupta (most formal)
Dear Ashok (less formal)
Ashok (very informal)

05. Body of Letter / Message:
Body of the letter is the content of the letter. It is also known as the soul of the formal letter. Formal letters are not the accumulation of the information but arrangement of information in such a way that it serves the purpose of writing the letter. Generally, they are single spaced, with a blank line separating it from the other parts of the letter. The body of the letter gets divided into three parts: they are opening paragraph, middle paragraph and closing paragraph. The opening paragraph links the letter to the earlier correspondence, middle paragraph includes what the writer wants to say clearly and the actual status should be mentioned here, closing paragraph mentions the expectation of the writer of the letter. Within the message part of the letter, one can express his purpose of writing very clearly. the letter should be precise (brief) written in a simple and clear language. Ornamental or technical jargons should not be used in a formal letter. It should be consistent with writing style of the existingpractice.

06. Complimentary Close:
It is a single word that formally ends the letter. In a block form of writing the letter, it is written on the left hand side of the letter and in the semi block form of writing the letter, it is written on the right hand side of the letter. It is separated from the body of the letter by one line. It should always be in accordance with the salutation. There are many complementary closes like faithfully, sincerely, cordially, respectfully, truly and obediently. Out of these many closes, YOURS FAITHFULLY is the most formal complementary close. SINCERELY and CORDIALLY are also widelyaccepted.

07. Signature Block:

The complementary close is followed by the signature block. It includes signature, name and designation of the person. Each letter must end with the signature otherwise the information in the letter is not considered authentic. It is placed four places below the complementary close. In the block form of writing, it is placed on left hand side and in the semi-block form of writing, it is placed on the right side of the letter. If the organization has given someone the power of attorney, that executive will add per.pro. before the name of the organization and then sign below. *Per.Pro.*Is the abbreviation of the Latin phrase *per procurationem*which means on behalf of.

ADDITIONAL ELEMENTS OF THE FORMAL LETTERS.

The following elements may be used in the combination depending upon the requirement of the letter. Theyare.

- AddresseeNotation
- AttentionLine
- SubjectLine
- ReferenceInitials
- Enclosure Line
- CopyNotation
- MailingNotation
- PostScript

Addressee Notation :

This appears a double space above the inside address. It is always written in capital letters. When the readership is to be kept limited, notations like PERSONAL, CONFIDENTIAL or PLEASE FORWARD are written.

Attention Line :

An attention line is used to draw the attention of a particular person or a particular department to ensure quick response. It is placed two places below the inside address. E.g.

Attention : Dr. C. M. Mehta

Subject Line :

Subject line helps the recipient to know about the subject matter of the letter. It helps in sorting and filing the letters. Usually, it appears above the salutation, but sometimes it is placed below the attention line. It is written in capital letters or it is underlined.

Reference Initials :

On occasions when the writer and the producer of the letters are two different people, reference initials are included to show who helped to prepare letter. They appear two places below the signature block. With the invasion of the electronic media, they appear rarely. They appear in one of these forms (1) Ksm/rk, (2) Ksm:rk

Enclosure Notation / Line :

It is written at the bottom of the letter. It includes the list of the documents that are attached with the letter. It helps the reader to find those documents and the papers. It is written below the reference initials. Some common forms are :

Enclosure : Draft of proposal

Enclosures: 1. Report(10pages) 2. List ofparticipants

Copy Notation :
This indicates who receives the courtesy copy. They include person's name, designation and department. They are appear as

Cc :courtesycopy Pc: photocopy

Mailing Notation :
Mailing notations are placed at the bottom of the letter after reference initials or enclosure options. They appear on the envelope also. They can be BY REGISTERED POST, BY COURIER, BY SPEED POST.

Postscript :
The sentences written after the letter is already written or signed are known as post script. It can serve to catch attention also. E.g. offer valid up to 15th August only. It sometimes shows the carelessness of the writer therefore it must be avoided. They are also known as the after thoughts of the letter. They can be used in sales letter as a punch line to remind the reader of thebenefit.

PRINCIPLES OF THE BUSINESS (FORMAL) LETTER
Business letters are written to create, establish and maintain relationship with others, based on respect and courtesy. For that, the following principles should be taken care of:

(1) YouAttitude
(2) Clarity and Conciseness
(3) Correct andComplete
(4) Positive Approach
(5) Courtesy andConsideration

(1) YouAttitude
A business letter is always written keeping in mind the recipient's needs, purposes and interests. This recipient-oriented style is often called the "you attitude". That means, the letter has to focus on YOU rather than I. it is also believed to be an extension of the audience-centred approach. It is not limited only to the use of pronoun you, but it is a matter of genuine empathy, revealing thought and sincerity.

(2) Clarity and Conciseness:
Clarity means clarity of ideas and expression and conciseness means expressing in as few words as possible. It is very difficult to write letter succinctly (clearly and briefly). The message of the letter should b e made clear. It should be written in clear terms. Layers of words and meanings are considered to be the swelling of the letter. The letter should be away from ambiguity because lack of clarity and conciseness makes the letter a failure. We should try to avoid the following aspects :

- Longinvolvedsentences
- over enthusiasticsentences
- Verbosityorwordiness
- Redundancy (no longer needed)

Use of concise words and phrases will help more to achievebrevity.

(3) Correctness and Completeness:
Although the business letter has to be concise and clear, it should not be achieved on the sacrifice of completeness and correctness. If it is not complete in all respects, it will not achieve its objective of conveying the matter correctly.

Correctness means concreteness and accuracy. Completeness refers to the thoroughness or giving all the required details.

To achieve correctness and completeness, the purpose of writing letter should be clear in thoughts and words. The following topic will help to achieve them.

- Use of evaluative and factual words rather than general orabstract.
- Use of unambiguouswords
- Proof reading of themessage
- All the queries and questions areanswered.

(4) PositiveApproach:
Use of positive words and phrases are always best of achieve the goal. The positive side of the message should be emphasized rather than the negative. Stress should be on what is there or what can be done rather than what might be lost. Letters reflecting the positive attitudes are more

acceptable to the readers. It also helps in healing the wounded customers or clien in case of complaints, criticism and advice. Unpleasant words should be replaced with a mild euphemism.

(5) Courtesy and Consideration:
Courtesy is the reflection of writer's image. It is oil that reduces friction. It also earns the respect and sustenance of relation with others. Utmost care and concern should be taken while writing the letter. We should care for the following aspects to be careful while writing a letter.

- Kindly respond to our request for ....
- We appreciate your prompt response to our..........
- We regret to say that we may not be able to grant you..........
- Please do not forget to send us the original as..........

Thus, in order to establish good relationships in business messages one should follow the principles of business letter writing mentionedabove.

WRITING SKILLS

REPORT WRITING

When the employees are asked to report on various social, political and economic issues, they discuss analyze and write on the matter. They meet from time to time, work out a detailed plan to conduct surveys and collect date from various sources and finally submit their findings and recommendations; this is called technical report writing.

DEFINITION – 1
"A report is major form of technical , business, professional communication. In writing a report, a person who possesses certain facts, ideas or suggestions useful for the courses of action transmits this information to another person who wants to use it."

DEFINITION – 2
"A report is usually a piece of factual writing, based on evidence, containing organized information on a particular topic and analysis of that particular topic."

It can be

- 200 pages report on research activities on geneticengineering
- 12 pages report on what kind of plastic to be used forpackaging
- 50 pages report on car alarm system which is newlyinvented.

STRUCTURE
- It is very formal innature.
- It is written for specific purpose andaudience.
- It discusses the topic indepth.
- It contains conclusions and recommendations.

OBJECTIVES
- To present a record of an accomplished task. (projectreport)
- To record and experiment (primary research, laboratoryreport)
- To record research finding and technical specifications. (detailed report on a newproduct)
- To document schedule, timetable and milestones. (a report on long termplan)
- To document current status. (Inspectionreport)
- To record or clarify complex information for future reference. (policies andprocedures)
- To present information to a large number of people. (annualreport)
- To present organized information on a particular topic. (a report describing working of various departments)
- To recommend actions that can be considered in solving particular problem. (recommendatory report)

CHARACTERISTICS OF A REPORT :

01. PRECISION:
While putting together a report, the investigation, analysis and recommendations should be directed by the purpose. It give and coherence to report to make it a valuable document.

02. FACTUAL DETAILS:
Since reports invariably leads to decision making, inaccurate details may lead to disastrous decisions. The scientific accuracy is essential to a good report. It should be detailed and factual.

03. RELEVANCE :
The facts presented in a report should be relevant to the central purpose of the report. Irrelevant facts make a report confusing; exclusion of relevant facts makes itincomplete.

04. READER-ORIENTATION :
Technical reports are meant for a specific audience. A good report should always be reader-oriented therefore it will be different from the language written for the laymen reading.

05. OBJECTIVITY OF RECOMMENDATION:
Recommendations are made up at the end of the report. They must be unbiased, impartial and objective. They should be a logical. It should clear, brief and grammatically correct.

06. SIMPLE LANGUAGE:
A good report is written in simple and unambiguous language. Since it is written for the practical utility, it should be free from embellished language. It should clear, brief and grammatically correct.

- Clarity:
  Clarity depends on proper arrangement of facts in a systematic way. The purpose of the report writing should be stated clearly and recommendations should be made in a straightforward way.

- Brevity:
  A technical report should be brief. It is difficult to achieve brevity in report, but it should be written as technically as possible. Of course, brevity should not be achieved at the cost of clarity and completeness.

- Grammatical accuracy:
  It is one of the basic requisites of a good report as any of the compositions. Faulty construction of sentences makes the meaning obscure and ambiguous.

07. SPECIAL FORMAT:
The technical report uses a rather involved format including cover, title page, table of content, list of illustrations, and letters of transmittal and appendices. They have to be prepared according to the set standard.

08. ILLUSTRATIONS:
Most technical reports are stuffed with illustrations which may be tables, graphs, maps, drawings, charts and photographs.

09. HOMOGENEITY:
The report should deal with one topic at a time. All the sections of the report should focus on that topic.

10. DOCUMENTATION :
When the report is adequately documented by acknowledging sources of information in an appropriate style, it is given importance and value.

TYPES OF REPORT :

Report can be classified as follow on the basis of purpose, frequency and mode of receptivity.

PURPOSE
- Informative
- Analyitcal

FREQUENCY
- Periodic
- Special

MODE
- Oral
- Written

INFORMATIVE :

As the name suggests, an informative report includes all details and facts pertaining to the problem. It presents the detailed history of the present situation. To fulfill the basic purpose of informing through report, all the details are laid in a systematic and coherent manner. In this kind of a report, various sections are simple and self-explanatory.

- Introduction
- Presentation of information and facts
- Conclusion with details in brief of earliersections. Recommendations are notgiven in this kind of a report, because it is just an accumulation of information. What one requires while writing informative report is to collect the data, arrange them in an appropriate order and present it in appropriate style in technicalwriting.

ANALYTICAL :

An analytical report analyses the facts draws conclusions and makes recommendations. It is also known as interpretative or investigative report. When an informative report goes into the causes of a particular situation, it becomes analytical, interpretative or investigative. It includes :

- Drafting problemstatement
- Evolvingcriteria
- Suggesting alternatives andevaluation
- Drawing conclusion and makingrecommendation

THE STRUCTURE OF AN ANALYTICAL REPORT :

- INDUCTIVE METHOD:
  This method follows a simple logical arrangement. It proceeds from singular to unknown. Certain disciplines, in which experiments are conducted, follow this pattern.

- DEDUCTIVE METHOD:
  This method proceeds from unknown to the known. Universal truths are taken as the formulation point for the problem and then various alternatives are suggested, evaluated and conclusion is drawn.

PERIODIC AND SPECIAL REPORT :

Periodic or routine reports are either informational or analytical in their purpose. They appear regularly at prescribed intervals in the usual routine of business. The intervals may be annual, semi-annual, quarterly, monthly, and weekly. It generally includes statement of facts in a summarized way in a prescribed lay out without an opinion or recommendation. Progress reports of various kinds, inspection reports, annual reports and sales reports all are the examples of the periodic report.

Sometimes, routine reports can be analytical or interpretative with recommendations to help the superiors to take decisions.

Special reports are related to a single or special situation. They deal with non-recurrent problems. A report on feasibility of opening a new branch, about the unrest among the staff, fire accident and its causes are kinds of special reports.

ORAL AND WRITTEN REPORTS :

On the basis of the mode of the presentation, the reports can be oral or written. An oral report is simpel and easy to present. It communicates an impression or an observation. Oral reports are useful while written reports are always preferred as they have many advantages.

THE IMPORTANCE OF REPORTS :

A report is a basic management tool used indecision making. The reports are vital, especially for large scale organizations that are engaged in various activities. Where the chief executives cannot keep an eye on personnel, they base their decisions on reports available. The following topics give an elaborate list of importance.

(1) A report is the real product of a professional as it conveys the efficiency of engineers, academicians andresearchers.
(2) Reports can help the administrators to take decisions as they are filled with information, analysis and suggestions. They also help in solving problems to a largeextent.
(3) If an organization wants to open a new branch, it relies largely on the reports to see the feasibility. Even annual assessment of qualities and capabilities of a person is also made throughreports.
(4) Routine reports such as inspection reports, inventory reports or annual reports transmit information across and outside theorganization.
(5) The reports are an important measure of growth, progress and success of an organization through its qualityandquantityofinformationflowthroughitspersonnelintheformoforalandwrittenreports.
(6) Reports serve as a valuable repository as they contain information as they contain assessment, suggestion in an organization. They can be referred again and again forreference.
(7) When the report is read and comprehended, the recipient comes to know whether the report writer had thought and written logically or whether he or she had conducted in depth study. Lacuna or drawbacks are clearly revealed by thereport.
(8) Reports not only reflect the organization but also reflect the writer's ability to organize, evaluate and to communicate with greateraccuracy.

FORMATS OF THE REPORT
The report may follow any of the following formats.

(1) MANUSCRIPT:
It is most commonly used format for formal report. The length may vary from few pages to several thousand pages. It can be used for all types of reports informational, analytical or routine. This format should include abstract, summary, appendix, glossary etc.

(2) MEMO:
A report sent to someone within the same organization is called a memo report. It includes analysis, conclusion and recommendations.

(3) LETTER:
When a short report of few pages is sent to the outsiders, it is in a letter format. It not only includes the routine parts but also includes headings, illustrations and footnotes.

(4) PRINTED:
These reports contain routine periodical matters to be written in prescribed format by the organization.

PRE-WRITING

Before writing a report, one has to undertake preliminary task which includes collecting material synchronizing details and confirmation of details.

(1) Scope andPurpose
(2) Analyzing theaudience
(3) Investigating the sources ofinformation
(4) Organizing thematerial
(5) Making anoutline

(1) PURPOSE AND SCOPE:
The objective of the study forms the purpose of writing a report and the scope shows the extent of the coverage.

Purpose decides the amount and method of the data to be collected, the quality and quantity of the information to be included in the report and also the methodology of to be adopted in analyzing the situation and arriving at the conclusion.

(2) AUDIENCE :
The audience for a technical report is the intended or potential reader. This is the most important consideration in planning, writing and reviewing a document. The writer should adopt the writing style to meet the meet interests and background of the readers. Lack of such analysis is the cause of problem in professional and technical documents. The audience can be categorized as :

- EXPERTS:
  They are the people who know the theory and product inside and out. They designed it, tested it, they know everything about it.
- EXECUTIVES:
  They are the people who make business, economic, administrative, legal governmental and political decisions on the matter that the experts and technicians work with. They decide whether to produce or market a particular product or not.
- NON-SPECIALIST:
  They have the least technical knowledge of all. Their interest may be as practical as technicians but in the different area. They want to use the new product to accomplish their tasks; they want to know enough technology to serve their purposes, but not for a specificreason.

(3) INVESTIGATING THE SOURCES OF INFORMATION:
To accomplish the objectives of the report, the writer would require facts and ideas; they get it from company records, reports, bulletins, pamphlets and periodicals. One may also conduct personal interview and circulate questionnaires to et information. The extent of investigation depends upon the length and importance of thereport.

(4) ORGANIZING THE MATERIAL:
Depending upon the topic, purpose and audience the writer can organize the material or data for the report as in follow :

- The order of occurrence:

It is also known as chronological. The sequence can be temporal or spatial.

- The order of importance:
  When the material is to be organized in the ascending or descending order of importance.

- Combination of order:
  This involves a double assignment. It combines the order of occurrence and order of importance. This is a fairly common combination.

(5) MAKING ANOUTLINE:
The formatting of a report should be carried out only after completion of the outline. It is a mechanical framework into which one can fit in bits and pieces of information. It serves as a signpost to show the right direction. It requires a considerable amount of time . This outline indicates the main topics and sub-topics for the report in words and phrases. It follows the givetips.

- Use of words ofphrases
- Use ofnouns
- Use of parallel grammaticalconstruction.
- Following the principle of co-ordination andsubordination
- Use of decimal numbersystem.

Resume Writing

Formal written communications are used extensively in the daily communication activities of any organization. It includes business interactions in the form of memoranda (Memos) letters, reports etc. Any document has to be designed with respect to the target audience. It is essential to be precise and concise often the reader may be interested only in the key information being conveyed rather than the details.

When writing a letter of application for a job, we promise to offer over services to a prospective employer. Also, job applications are accompanied by a resume or a curriculum vitae (CV).

Resumes are technical as well as marketing documents that present the candidate's past and present performance to the prospective employers so that they can access his/her future potential. Employers usually have more applications than they can handle, and hence, they naturally look for ways of narrowing down the candidates to a manageable number . An effective resume will put the candidate into that shortlist.

If we see the word resume, so in French it means summary. It is usually one page long, but may extend to two pages some times. It includes the gist of an individual's education, past employment, and skills for the new position. The features of a resume include the following :

- Written inpoints
- Objective and formal inapproach
- Written in thirdperson
- Name and address of theapplicant
- Summary of educationalqualification
- Employmenthistory
- Professionalaffiliation
- Skillsets

Resume Design and Structure:
A resume should present a brief summary of the candidates personal details followed by details such as career objectives, educational qualifications, professional and technical skills and extracurricular activities

and achievements. It should not be very long, as the applicant will get the opportunity to present detailed information if short listed for the interview.

Appearance and elements:
The purpose of the resume is to get called for an interview. It must be well organized so that vital information is readily accessible.

A resume should reflect the professional image that we want to create. It should be :
- Neat and error free with no whiteouts or handcorrections.
- Legible and wellspaced.
- Printed on good quality paper of A4size.
- Reproduced clearly on a high quality printer or copymachine.

While resumes can be organized in more than one way, they will almost always contain the same basic information. Resumes are not autobiographies. The purpose is to gain the opportunity for an interview, and not to give a detailed history.

Personal information:
In this one should include his/her name, address, phone numbers, email address and website under this beading. You may not want to list your current business phone or business email. A personal email address and home or cell phone is preferable. Also one might set up a professional email account which does not sound frivolous for seeking employment. An email ID like volcano 2000 @ hotmail.com may be okay for personal use, but a prospective employer might not like it

Career / Professional / Objective:
While stating the objective, make it effective by being as specific as possible about the requirement or aspiration. E.g.

A software sales position involving international experience in a growing company.

Education / academic preparation:
Employers are usually interested in learning about the candidates academic training, especially education and training since high school, degree earned, major & minor fields of study courses or projects done, and also the practical experience gained during graduation. Begin with the most recent education & work backward. If the individual has received awards for other accomplishments, all achievements can be listed in a separate section entitled "Awards and Honors".

Work experience / Professional Skills:
A prospective employer would always be interested in a candidate's past work experience when describing work experience, list jobs in chronological order, with the present or last one first. Include any part-time or summer internships or projects done, even if unrelated to the career objectives. It demonstrates the person's ability to get and hold a job an important qualification in itself.

There is no need to use complete sentences, phrases will suffice. Place this section either before or following the section on education, depending on which will be most important to anemployer.

Activities, achievements / special interests, aptitudes, memberships:
These include professional courses undertaken, community service / volunteer activities, languages known (written and spoken communication), knowledge of handling special equipment, relevant hobbies and so on. The key here is to include only information that the employer will find useful and that casts the candidate in a favorable light. Activities can be grouped into categories such as college activities, community or social services, and seminars andworkshops.

Also mention awards or honours received. Give details regarding nature of award, activity for which the award was received, date or month and year of receiving, and the authority from whom award was received.

Reference:
This section should always be the last one in a resume. For space and privacy considerations, one may simply include the phrase "Reference available upon request" and supply the names only when and if asked for, as employers rarely investigate references until the candidate is under serious consideration.

In this mention only the three or four people who combine the best elements of familiarity with the work and a credible position. Don't give reference from a celebrity who barely knows you or any unknown person who has worked closely with you. In any case, do get permission beforehand from the people listed asreference.

Types of resume:
01. Chronologicalresume
02. Functionalresume
03. Hybrid (also called combinationresume).

01. Chronological resume: It emphasizes education and work experience and is most effective when suchexperienceclearlyrelatestothejobweareseeking.Listentriesinreverseorder,beginning

with the most recent experience. In case of recent graduates, listing the education first makes sense. It is most common way of resume and it is preferred by most employers.

02. Functional resume: The functional resume features the skills that the candidate has got (organizer, researcher, manager etc.) It emphasizes individual fields of competence and is hence used by applicants who are just entering the job market, who want to redirect their careers or who have little continuous career – related experience. In short, it demonstrates the applicant's ability to handle the position they are applyingfor.

Also follow the skills category immediately withachronological________history and a scaled down education section that lists only institutions degree, anddates.

03. Hybrid / combination: It is the combination of chronological and functional resumes. However, this type is not popular or not commonly used as it tends to be very long and also it may turn out to be repetitive in nature. Whatever the format strong resumes possess the samequalities.

- They focus on the employer'sneeds
- They areconcise.
- They are honest.

249, Ashok Bhawan
BITS, Pilani
Rajasthan –333031

25 November 2010 The Manager
Cisco Private Limited
5th cross, Sebastian Road, Hyderbad.
India – 530016 Dear Sir,

I was very interested to see your advertisement for a Software Engineer in The Hindu (20 November 2010). I have been seeking just such an opportunity as this, and I think my background and your rrequirements may be a good match. I am very much interested in working as a Software Engineer in your esteemed organization. I enclose my resume as a first step in exploring the possibilities of employement with Cisco PrivateLimited.

I have worked as a project trainee in Satyam Cormputer Service Limited for the past 6 months. I was involved in developing a graphical user interface for Metadata Management System. So I have hands-on experience in Java Swing, Java Security, JDBC, and Oracle.

As a Software Engineer in your organization, I assure you that I will work hard for the improvement of your company. Furthermore, I work well with others.

I would appreciate your keeping this enquiry confidential. Thank you for your consideration.

Yours faithfully

(Gopinath M. C.)

Enclosure : Resume

Gopinath M. C.
Email : gopinath_mc@yahoo.co.in
Mail : 248, Ashok Bhawan, BITS, Pilani,
Rajasthan
India-333031.

Objective

- To associate myself with an organization that provides a challenging job and an opportunity to prove innovative skills and diligentwork.
- To be involved in providing software solutions to enhance networksecurity

Professional Experience

Project Trainee (July 2009 – December 2009)
Satyam Computer Service Ltd, Hyderabad
Project : Metadata Management System
Description : Metadata manager is a tool to create and maintain data marts. it creates a centralized metadata repository to store all the details about data marts.
Databases, Technologies & Languages used : Oracle, Swing, JDBC, Java Security, XML, PI/SQL, Java.

Responsibilities

- Designed a database in Oracle to holdmetadata.
- Designed an appropriate graphical user interface for thesystem.
- Led in the design and development of Security System for thisapplication.

Project Details

Implementation of secure File Transfer System (January 2009 – May 2009): It involves the design implementation of Kerberos for File Transfer Protocol in C language.

Kerberos improves the security of FTP by preventing reply attacks and IP spoofing. It uses DES for encrypting the packet that reduces the processing time when compared with RSA.

Learning Aids Development (January 2010 – May 2010): It involves the design and development of applets for BITS Virtual University. It includes the analysis of security vulnerabilities of applets.

Courses Done

- NetworkSecurity
- ComputerNetworks
- Telecommunication Switching Systems andNetworks

Educational Background

Degree of Examination	Name of the Institution or School	Year	Division
M.E., Software Systems (Final Year)	Birla Institute of Technology and Science, Pilani, Rajasthan	2009-present	
B.E. (Hons), Electronics and Instrumentation	Birla Institute of Technology and Science, Pilani, Rajasthan	2005-2009	First Division with 72%
Higher Secondary Examination	Bharathi Vidya Bhavan, Ecode, Tamil Nadu	2003-2005	Distinction with 97%

Software Skills

- Programming languages: C, C++, Java PERL, and Assembly/MachineLanguage
- Technologies:HTML,JavaSecurity,JDBC,Swing,XML,SQLPL/SQL,andGNUMake.

- Security experience: have helped to uncover multiple serious security holes in the LAN network and to buildFirewalls.

Accomplishment

Achieved a transfer of degree from B.E., (Hons) Electronics and Instrumentation to M.E., Software Systems.

Personal Details

DateofBirth	:	28 April 1981
MaritalStatus	:	Single
LanguageKnown	:	English and Tamil
PermanentAddress	:	1329-A, KK Nagar First Street, Kalinagarayanpalayam, Bhavani, Erode District, Tamil Nadu, India-638316.

Reference

- Mr. Munilkumar
  SystemAnalyst,
  Satyam Computer Service Ltd, Hyderabad, Andhra Pradesh, India
- Mr. SunilPal
  Senior Software Engineer,
  Satyam Computer Service Ltd, Hyderabad, Andhra Pradesh, India
- Mr. Madhu Manohar
  Senior SoftwareEngineer,
  Satyam Computer Service Ltd, Hyderabad, Andhra Pradesh, India

Scannable Resumes:

The document which is in a format that it can be successfully scanned using optical character recognition (OCR) technology. It's also known as plain text resume. As it gives more emphasize on text rather than fonts, bullets, italicsetc.

Though the content of a scannable resume may be similar to that of print resume, it is prepared to in such a way that all required information can be scanned and loaded into electronic programs easily. It saves time also one can make PDF (portable document format) where the setting of these documents does not get disturbed.

It is different in format of traditional resume. It require only text and one don't need to involve uderline, bullets bold fonts etc. Also they include key words and they may run to 3 pages.

Once received, the resume is scanned into an electronic resume database with the help of OCR software. A scannable resume assists employers in selecting the right person by using existing databases to quickly match the applicants skills to suitable job openings.

Tips to prepare scannable resume:

- Always use capital letters for sectionheadings.
- Use any font size in the range of 11 to14.
- Avoid decorativefonts.
- Do not use special characters such asbullets.
- Avoid using tables, any kind of graphics or shading,etc.
- Do not try to make the resume noticeable by using underline, shadows, italics,etc.
- Always give white space while ending onetopic.
- Left justify thetext.
- Jargon can be used, if required, but they should be specific to the organization with which employment is beingsought.
- Place the candidate's name at the top of thepage.

S. SRICHARAN

PHONE + 91 – 9529445673 · EMAIL SRICHARANSIYER@GMAIL.COM
ROOM NO. 262, RANAPRATPA BHAVAN, BITS – PILANI – 333031

BE (Chemical Engineering) & MSc Chemistry, 2005-2010

EDUCATION

- BITS,Pilani
- 6.34 (at the end of 9th sem)

INTERNSHIPS

STERLING BIOTCH LTD, VADODARA (INDUSTRIAL TRAINIG)
July 2009 – Dec 2009
- Word's Largest GelatinProducer.
- Worked on the development of media composition, optimization, and scale up of growth media for industrial fermenter (160,000 liter fermenter). Associated design characteristics for effectiveness of the fermenter were alsostudied.

INDIAN INSTITUTE OF SCIENCE, BANGALORE
June 2008 – July 2008
- Simulated and studied the sensitivity and control analysis as well as behavior of cells in signaling pathway using CoPaSi (Complex Pathway Simulator). The study also worked on the pharacokinetic model to understand the parameters to reduce the unwanted absorption ofdrugs.

NATIONAL METALLURGICAL LABORATORY, CSIR CAMPUS, CHENNAI
May 2007 – July 2007
- Achieved breakthrough in a project for Govt. of Bangladesh to remove aresenic from drinking water by proposing a novel mechanism for their separation. The project has been implemented and is now being used for watertreatment.

ACADEMIC PROJECTS

Project I : Extractive separation and determination of chromium in tannery effluents.
- Work published in Journal of Hazardous Chemicals(2009)
Project 2 : Currently pursuing a study on 'Market parameters and resources for effective advertising in chemical and pharmaceuticalindustries'
Project 3 : Application of nonmaterial in drug discovery and selective drug delivery research.

ACADEMIC ACHIEVEMENTS AND AWARDS

Awarded the INAE (Indian National Academy of Engineering) summer fellowship for my work at the Indian Institute ofScience.
TEAM LEADER, United Way of Baroda (an umbrella NGO that manages I40 other NGOs)

POSITIONS OF RESPONSIBILITY

- Cultural Secretary of my hostel-Organization and Hosting of 'INBLOOM', an intra-BITS cultural festival.
- Senior core member, Department of Sponsorship and Marketing for sportsmeet.
- Played pivotal role in singing a 5 year deal with Adidas to supply sports accessories for the meet. Also worked on routine sponsorship acquirement for a budget of Rs. 8lakh.
- Senior Core Member, Department of Informalz, during the annual cultural festival oncampus.
- Professional Assistant, for the course Main Trends inIndian History.

EXTRA-CURRICULAR ACTIVITES ANDACHIEVEMENTS

- Black Belt (Sho-Dan) in Shutokon StyleKarate
- Runner-up at the IndiaQuiz
- Hosted a number ofquizzes
- Silver medal for Shot-Put in Bosm2007

OTHERINFORMATION

- Fluent in 5 Indian Languages andGerman
- Course topper in Modern Analytical Chemistry and Main Trends in IndianHistory.

Some case studies and questions for engineering ethics

01. Facts:

Tenants of an apartment building sue the owner to force him to repair many defects in the building which affect the quality of use. Owner's attorney hires Engineer A to inspect the building and give expert testimony in support of the owner. Engineer A discovers serious structural defects in the building which he believes constitute an immediate threat to the safety of the tenants. The tenants' suit has not mentioned these safety related defects. Upon reporting the findings to the attorney, Engineer A is told he must maintain this information as confidential as it is part of a lawsuit. Engineer A complies with the request of the attorney.

Question:

Was it ethical for Engineer A to conceal his knowledge of the safety-related defects in view of the fact that it was an attorney who told him he was legally bound to maintain confidentiality?

02. Facts:

Engineer A contracts to serve as a consultant to a federal environmental agency for the development of an overall hazardous waste remedial strategy. Under the contract with the federal agency, Engineer A agrees to provide basic consulting services along with an understanding that the federal agency may request additional services at a later date. Nothing is contained in the contract between Engineer A and the agency concerning other work for other clients. Two years following completion of basic services to the federal agency, Engineer A is retained to provide environmental consulting services by a major industrial corporation which has been deemed by the federal agency to be responsible in a dispute over the clean-up of a hazardous waste site. Following the execution of its contract with the corporation, Engineer A is contacted by the federal environmental agency and is asked to provide consulting services to the agency per Engineer A's original understanding with the agency in connection with the specific hazardous waste site of the major industrial corporation which is now a client of Engineer A. Engineer A informs the federal agency that the performance of such services would constitute a conflict of interest and declines to perform the servicesrequested.

Question:

Was it unethical for Engineer A to agree to perform services to the industrial corporation under the facts without the prior consent of the federal agency?

03. Facts:

Engineer "A" has applied for an engineering position, has been interviewed and has been advised by the prospective employer that his application is being favorably considered. However, he has not been employed and no commitment has been made to him. Engineer "B" learns of the opening and, knowing that Engineer "A" is under favorable consideration, applies to the employer for the same position. In presenting his qualifications, Engineer "B" does not refer to Engineer "A" in any way. Engineer "A" learns of Engineer "B's" action and alleges that he acted unethically in applying for the position knowing that he (Engineer "A") was under favorableconsideration.

Question:

Did Engineer "B" act unethically in applying for a position knowing that another engineer was being favorably considered for the same position at that time?

04. Facts:

A corporation has an integrated operation embracing engineering, construction, and manufacturing. In its brochure and advertisements the corporation states that it is engaged in activities embracing all of the above-listed operations. It will provide any portion of these services as may be desired by a client. The corporation usually acts for clients on large projects, such as power plants, factories, dams, etc., and has separate divisions for each of the primary functions. All of the engineering operations are under the direction of professional engineers.

Question:
Do the Canons of Ethics restrict the corporation to the practice of engineering in association with non-engineering activities?

05. Facts:
Engineer Firm X offers and provides professional services to Municipality Y under a contract in which it is agreed that Engineering Firm X will perform certain preliminary planning and feasibility studies in connection with various public works, such as water supply, airports, drainage, storm sewers, sanitary sewers, water distribution, sewage treatment, etc. The contract provides that Engineering Firm X will be paid an appropriate fee for these preliminary professional services whether the project is built or not. The contract further stipulates that if the project is built, and if Engineering Firm X is retained for the full professional services, it will be paid the regular professional fee for such work, based on the usual type of negotiation. Municipality Y retains the right to select another firm for the design and construction phases, but in that case Engineering Firm X will be paid an additional fee of one-and-one-half (1 1/2) per cent of the estimated construction cost. If the project is not built, Engineering Firm X is not entitled to any additionalfee.

Question:
Was it unethical for Engineering Firm X to contract for an additional fee based on professional work performed by others?

06. Facts:
Engineer "A" had been retained by an Owner for certain engineering services under written agreement. Prior to the completion of his work, "A" was notified by the Owner that his services were being terminated. Subsequently, Engineer "B" was retained by the Owner for the same work. Engineer "B" was notified by Engineer "A" that the termination of his service was by unilateral action of the Owner and was not "accepted" by Engineer "A."

Question:
Was it ethical conduct on "B's" part to accept the contract in view, of the unilateral termination of "A's" services without his consent, and over his objection?

07. Facts:
Engineer X of Company A prepared plans and specifications for machinery to be used in a manufacturing process and Company A turned them over to Company B for production. Engineer Y of Company B, after reviewing the plans and specifications, came to the conclusion that there were certain miscalculations and technical deficiencies of a nature that the final product might be unsuitable for the purposes of the ultimate users, and that the equipment, if built according to the original plans and specifications, might endanger the lives of persons in proximity to it. Engineer Y called the matter to the attention of appropriate officials of his employer who, in turn, advised Company A of the concern expressed by Engineer Y. Company A replied that Engineer X believed that the design and specifications for the equipment were adequate and safe and that Company B should proceed to build the equipment as designed and specified. The officials of Company B instructed Engineer Y to proceed with the work. Engineer Y refused to build theequipment.

Question:
Was it ethical for Engineer Y to refuse to build the equipment?

08. Facts:
Two full-page advertisements of manufacturers and one of an association of companies which sell energy services contain the names of engineers in private practice, their pictures (in two examples) and pictures of the projects designed by the engineers (in two examples). The advertisements all deal generally with the virtues of the products or services advertised and associate the engineers' favorable experience with the products or services.

Example 1 quotes the named engineer as having used the particular type of energy source to the benefit of his clients. The advertisement is carried under the name of an association of companies which provide the particular type of energy source involved. It does not mention competitive energy sources.

Example 2 is an advertisement of a manufacturing company, featuring pictures of a consulting engineer (in four poses) and quotes the engineer in terms of the advantages to a client in retaining a consulting engineer for his engineering requirements. The statements of the engineer do not refer to the products of the advertiser, but refer generally to the type of environment in which such products would be used. The statements of the manufacturer in the same advertisement recommend talking to a consulting engineer early in the planning stages of a project and emphasize that it will be to the client's advantage to utilize the specialized knowledge, experience, and independent judgment of a consulting engineer. It then states that the manufacturer has led in the design and development of the finest products related to the indicated equipment requirements for buildings.

Example 3 is an advertisement of a manufacturer stating that a named consulting engineering firm has used its products successfully in connection with a particular project to solve difficult engineering problems. The balance of the text states the various advantages and quality of the particular product. The advertisement contains four pictures illustrating use of theproduct.

Question:
Is it ethical for an engineer to authorize the use of his name in such commercial advertisements?

09. Facts:
Engineer A, employed by the XYZ Manufacturing Company, which produces and sells a variety of commercial home-use products, became concerned about what he regards as a trend toward the production of "cheap" products for sale to the public. He feels that this trend toward inferior and shoddy products is due in large part to inadequate engineering, and that an increase in engineering effort could produce products of greater durability andefficiency.

Engineer A joins a group of other engineers, not all of whom work for the same company, who feel the same way. They form a "Citizens Committee for Quality Products." Engineer A becomes a leading spokesman for their cause, including public statements, letters to local newspapers and appearance before legislative bodies in support of laws to impose minimum standards for commercial products.

Engineer B, the supervisor of Engineer A, warned him that if he continued in his activities, he would be discharged because he was putting his employer in an embarrassing position, even though Engineer A had not mentioned the products of his employer or any other specific company in his activities on behalf of the Citizens Committee.

Questions:
1. Was Engineer A in violation of the Code ofEthics?
2. Was Engineer B in violation of the Code ofEthics?

10. Facts:
A government agency entered into a contract with an engineering firm to design a facility. Following completion of the design, bids were received from contractors for the construction, and a contract was entered into with the low bidder. The construction contract contained a value engineering clause to the effect that the contractor could submit to the contracting officer of the government agency suggested changes in the plans or specifications for the purpose of reducing the cost. The suggested changes would be submitted by the contracting officer (Engineer "B") to the Engineer ('C") for comment, following which the contracting officer would make the decision whether to approve the suggested changes, in whole or in part. The saving resulting from approved changes would be divided equally between the contractor and the government.

Engineer "'A", employed by the contractor, proposed a change in the plans and specifications in accord with the value engineering clause. His employer transmitted the proposed change to Engineer "B", the contracting officer. He submitted the proposed change to Engineer "C", a principal in the design engineer firm. Engineer "C" recommended that the change not be approved and further objected that the actions of Engineers "A" and "B" were unethical.

Question:
Was it unethical for Engineer "A" and Engineer "B" to present, review, or approve changes in engineering designs prepared by Engineer "C"?

11. Facts:
Engineer P, an engineer employed by a manufacturing company, was discharged by his employer for being drunk on several occasions while in the performance of his duties. The discharge of Engineer P and the reason therefore received some local newspaper publicity. The local chapter of the state professional engineering society of which the engineer is a member proposes to bring charges of unethical conduct against him and to take appropriate disciplinary action if the charge is sustained.

Question:
Does the personal misconduct of Engineer P constitute a violation of the Code of Ethics?

12. Facts:
Engineer A performed certain research and then prepared a paper on an engineering subject based on that research which was duly published in an engineering magazine under his byline. Subsequently, an article on the same subject under the name of Engineer B appeared in another engineering magazine. A substantial portion of the text of Engineer B's article was identical word-for-word with the article authored by Engineer A. Engineer A contacted Engineer B and requested an explanation. Engineer B replied that he had submitted with his article a list of six references, one of which identified the article by Engineer A, but that the list of references had been inadvertently omitted by the editor. He offered his apology to Engineer A for the mishap because his reference credit was not published asintended.

Question:
Was Engineer B ethical in publishing his research and explaining why Engineer A's article was not referenced?

13. Facts:
Engineer Jones was retained by a public agency to develop technical guidelines for an incinerator facility at a major government installation. Following submission, approval, and payment to Jones for the technical guidelines, the public agency owner decided it wanted to proceed with the design and construction by a "turnkey" method of one entity providing both the design and construction. The owner requested Jones to participate in this approach through a joint venture arrangement with a construction contractor, or if preferable, by performing the design function as a subcontractor to the construction contractor, or if he preferred, to bid the complete "turnkey" contract and subcontract the construction to a construction company. In any of these arrangements, the owner proposes to secure bids for the design and construction.

Question:
May Engineer Jones ethically participate in the enterprise through any of the above design/construct procedures?

14. Facts:
Engineer A and Engineer B are faculty members at a major university. As part of the requirement for obtaining tenure at the university, both Engineer A and Engineer B are required to author articles for publication in scholarly and technical journals. During Engineer A's years as a graduate student he had

developed a paper which was never published and which forms the basis of what he thinks would be an excellent article for publication in a journal. Engineer A discusses his idea with Engineer B and they agree to collaborate in developing the article. Engineer A, the principal author, rewrites the article, bringing it up to date. Engineer B's contributions are minimal. Engineer A agrees to include Engineer B's name as co-author of the article as a favor in order to enhance Engineer B's chances of obtaining tenure. The article is ultimately accepted and published in a refereedjournal.

Questions:
1. Was it ethical for Engineer A to use a paper he developed at an earlier time as the basis for an updated article?
2. Was it ethical for Engineer B to accept credit for development of thearticle?
3. Was it ethical for Engineer A to include Engineer B as co-author of thearticle?

15. Facts:
Engineer A, a chemical engineer with no facilities design and construction experience, receives a solicitation in the mail with the followinginformation:

"Engineers today cannot afford to pass up a single job that comes by - including construction projects that may be new or unfamiliar.

Now - - thanks to a revolutionary new CD-ROM - specifying, designing and costing out any construction project is as easy as pointing and clicking your mouse - no matter your design experience. For instance, never designed a highway before? No problem. Just point to the 'Highways' window and click.

Simply sign and return this letter today and you'll be among the first engineers to see how this full-featured interactive library of standard design can help you work faster than ever and increase your firm's profits."

Engineer A orders the CD-ROM and begins to offer facilities design and construction services.

Question:
Was it ethical for Engineer A to offer facilities design and construction services under the facts presented?

Case **1 -** False Claim of Production Source. A major company was unsuccessful in bidding on a complex gyroscopic control system for a military aircraft. Using strong political connections with the White House, they forced a Pentagon level review of the evaluation. The proposal claimed all portions of the system were produced in company facilities. On a visit to one of the qualified suppliers of Rate Switching Gyros, Air Force personnel had witnessed production of units with name plates of the major supplier. The qualified supplier was a very small company. Is it ethical for a company to subcontract equipment and then claim in a proposal that it is produced in house? Where is the line drawn between a typical purchased subassembly which goes into a largerproduct?

Case **2 -** Unfunded Equipment Development. A working level engineer came up with a very creative approach to improve the UL required High Potential Leakage Tests. He proposed modifying a very complex piece of computer based test equipment to aid final line personnel in discovering causes for failure when the final assembly was tested on a standard High Potential Tester. He convinced his unit manager of the value of his proposal. His manager then convinced his area manager of the high probability of success. Unit had about 15 engineers, the area had 60 engineers and technicians. However, they could not convince the production plant that funded this test equipment to fund this proposal. Funding involved about one man year of programming, about $10,000 of test equipment, and about four man months of technician time to assembly, debug and try the test equipment. Should the proposal be dropped or should resources be "stolen" from other funded programs?

Case **3 -** It's Not Your Responsibility. A Senior Engineer from Advanced Manufacturing Engineering committed to spend two years in a particular job. The first year he would spend in Design Engineering learning the overall system for a very complex piece of office equipment. This product was in the final stage of development with production start-up at the end of the year. His second year would be spent on the manufacturing floor solving performance problems. In the past, manufacturing had experienced great difficulty determining the cause of the final test failures. During his training, a basic performance assumption that was explained to him bothered him. He challenged it, and was told in no uncertain terms that particular challenge was outside the scope of his responsibilities, that he was wrong, and that he should just accept it as a known fact. Should he drop thequestion?

Case **4 -** Technical Production Problems for a Critical Part. A critical part, essential to acceptable performance of a new, state-of-the-art product has very low production yields. If start-up product sales equal marketing forecasts, sufficient parts could not be produced to meet both production and field service requirements. The supplier cannot expand production capability fast enough to meet the proposed production at current and forecasted yields. Should Program Management be informed that they must either delay product introduction or reduce the launch production rates? There is another part with similar problems and the group responsible for the part has informed program management. They are now spending untold hours in status meetings.

Case **5 -** Forgotten Commitment. The manager of a test equipment development group decided to take the calculated risk that a foreign division program would be canceled and never started a funded requirement to develop a major piece of equipment. He also failed to inform his successor of this requirement and course of action. This equipment would normally require a year of design and a year of debug. The foreign division asked for a status one year from the delivery date. After finding out what had occurred, should the Manager of the Test Equipment Group confess the real status to the foreigndivision?

PERSONAL RELATED, ETHICS CASE STUDIES

Case **6 -** Sharing of Cash Award. A technical design that pushed the state-of-the-art was entered in an annual Aluminum Association Competition. The development involved "early supplier involvement." The supplier suggested the entry. They had been involved with a winning entry the previous year. They warned that determination at who would share the cash award in event of winning should be determined prior to submitting the entry. The subassembly that was to be entered had involved over a year of development by many design and manufacturing personnel. The individual level ofinvolvement varied from a few hours of work to several man months. How is a cash award properly handled in such a situation? Should it be split 50/50 between the lead Design Engineer and the lead Advanced Manufacturing Engineer? Should it be divided to all involved in proportion to hours spent? Only the lead engineers are involvedin preparing, submitting, and presenting the entry.

Case **7 -** False Trip Report. A Senior Design Engineer and a Senior Fabrication Engineer scheduled a trip to review a very complex tool for an injection molded part at the supplier's plant. They had been there on previous occasions over a span of many months. This complex long lead part was being developed with early supplier involvement. The Senior Design Engineer was first to turn in his trip report, and his manager noticed that the hotel bill was for a double room. He called the manager of the other engineer to see if he also charged for a room and to see if it was for the same room. Both were known to enjoy their time in bars and the thought was that they might have shared a room and double billed it to work around the daily expense limit on food.

When the other expense report came in, it was for a different room number. It was also for a double room. The design manager then called the supplier to ask a technical question about the tool related to the trip report in an attempt to see if the supplier might make some remark that would shed some light on the issue. To his surprise, the supplier stated there had been no review of the tool. He stated that two weeks prior to the trip he asked the two engineers to reschedule the tool inspection since a competitor company was in-plant for a tool tryout. He further stated that the only contact was a brief status meeting in the hotel coffee shop. The design manager then confronted his engineer with the information he had gathered and asked for anexplanation.

The engineer immediately broke down and stated they had made plans to visit with some women they met on a previous trip and therefore did not change the date of the visit as requested by the supplier. He resigned on the spot. Since he was married, he did not want an investigation. What should the Advanced Manufacturing Engineering organization do about their Senior Manufacturing Engineer? Consider and discuss the ethical actions of the two engineers and management. Consider the ethics associated with the false trip report, and charging the company for the double room. Where should a company draw the line on technical versus personal moral issues versus business issues? As a point of information, the Fabrication Engineer was married.

Should this fact be of any concern to the managers?
Case **8 -** Acting Area Manager's Rules on Accepting Gifts. Immediately upon being promoted to an acting second level manager position within the same organization in which I had been a first level manager, I published a list of Rules of Conduct with suppliers that was much stricter than company policy. Among these was a rule that stated: "No gifts of any kind could be accepted from suppliers." I was immediately confronted by a young engineer who asked if this included tickets to Buffalo Bills football games. I replied that it did. He stated that it was wrong for me to establish such rules. His peers on other product programs in the company were allowed to accept such tickets and they and the sponsoring supplier could have meaningful technical discussions at the games. At the time, engineers were receiving gifts such as the tickets, all expense paid deep sea fishing trips, ski trips, etc. "Business lunches" were very frequent, always paid for by the supplier. What should the manager do in this situation?

Case **9 -** Suggestion Awards. A young engineer, on active duty in the military, tries to eliminate a base that is purchased with every gyroscope. The base allows for quick disconnect/connect. The gyroscope is used in three different aircraft, the base is used in only one of the three. That one aircraft is no longer in production so bases are no longer needed. The other two airframe manufacturers just store them. They can neither dispose of them nor return them to the government. The "system" will not allow the engineer to delete the base from the specification. He then submits a "suggestion" through the formal Suggestion System. The engineer receives a call from a staff member in the office that handles suggestions. Military suggestors cannot receive monetary awards, so the staff member suggests that the officer add a civil service engineer to the suggestion with the arrangement that the civil service engineer split the monetary award which he is entitled to with the officer. The annual savings for suggestion amounted to $100,000 per year in 1963 dollars. The top award the officer can receive is dinner for two at the officers club. What should the officer do?

Case 10 **-** Consulting Fees. A faculty member at a College of Engineering is asked to take part in a project for a local company through a research firm that is associated with the Institute. The policy is for no more than four consulting days per month unless the faculty member "buys out" some of his/her teaching load. Thefacultymemberiscurrentlyconductingworkshopsforcolleaguesatanotherinstituteattherateof
$1,000 per day. The workshops require two days and he has been conducting at least one, and often two, per month. The research firm pays at the rate of $40 per hour The faculty member declines the work based on the pay level, but states that he would change his decision if they raise the pay to $100 per hour. The representative for the research firm takes the request to the firm and the response to the faculty member is that the fee cannot be raised, but that he can submit two and a half times the actual hours worked on his time card. What should the faculty member do?

Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the highest standards of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct.

I. FundamentalCanons
Engineers, in the fulfillment of their professional duties, shall:
1. Hold paramount the safety, health, and welfare of thepublic.
2. Perform services only in areas of theircompetence.

3. Issue public statements only in an objective and truthfulmanner.
4. Act for each employer or client as faithful agents ortrustees.
5. Avoid deceptiveacts.
6. Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of theprofession.

II. Rules ofPractice

1. Engineers shall hold paramount the safety, health, and welfare of thepublic.
   a. If engineers' judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may beappropriate.
   b. Engineers shall approve only those engineering documents that are in conformity with applicable tandards.
   c. Engineers shall not reveal facts, data, or information without the prior consent of the client or employer except as authorized or required by law or thisCode.
   d. Engineers shall not permit the use of their name or associate in business ventures with any person or firm that they believe is engaged in fraudulent or dishonestenterprise.
   e. Engineers shall not aid or abet the unlawful practice of engineering by a person orfirm.
   f. Engineers having knowledge of any alleged violation of this Code shall report thereon to appropriate professional bodies and, when relevant, also to public authorities, and cooperate with the proper authorities in furnishing such information or assistance as may berequired.

2. Engineers shall perform services only in the areas of theircompetence.
   a. Engineers shall undertake assignments only when qualified by education or experience in the specific technical fieldsinvolved.
   b. Engineers shall not affix their signatures to any plans or documents dealing with subject matter in which they lack competence, nor to any plan or document not prepared under their direction and control.
   c. Engineers may accept assignments and assume responsibility for coordination of an entire project and sign and seal the engineering documents for the entire project, provided that each technical segment is signed and sealed only by the qualified engineers who prepared thesegment.

3. Engineers shall issue public statements only in an objective and truthfulmanner.
   a. Engineers shall be objective and truthful in professional reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, or testimony, which should bear the date indicating when it wascurrent.
   b. Engineers may express publicly technical opinions that are founded upon knowledge of the facts and competence in the subjectmatter.
   c. Engineers shall issue no statements, criticisms, or arguments on technical matters that are inspired or paid for by interested parties, unless they have prefaced their comments by explicitly identifying the interested parties on whose behalf they are speaking, and by revealing the existence of any interest the engineers may have in thematters.

4. Engineers shall act for each employer or client as faithful agents ortrustees.
   a. Engineers shall disclose all known or potential conflicts of interest that could influence or appear to influence their judgment or the quality of theirservices.
   b. Engineers shall not accept compensation, financial or otherwise, from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are fully disclosed and agreed to by all interestedparties.
   c. Engineers shall not solicit or accept financial or other valuable consideration, directly or indirectly, from outside agents in connection with the work for which they areresponsible.
   d. Engineers in public service as members, advisors, or employees of a governmental or quasi-governmental body or department shall not participate in decisions with respect to services solicited or provided by them or their organizations in private or public engineeringpractice.
   e. Engineers shall not solicit or accept a contract from a governmental body on which a principal or

officer of their organization serves as amember.

5. Engineers shall avoid deceptiveacts.
   a. Engineers shall not falsify their qualifications or permit misrepresentation of their or their associates' qualifications. They shall not misrepresent or exaggerate their responsibility in or for the subject matter of prior assignments. Brochures or other presentations incident to the solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, joint venturers, or pastaccomplishments.
   b. Engineers shall not offer, give, solicit, or receive, either directly or indirectly, any contribution to influence the award of a contract by public authority, or which may be reasonably construed by the publicashavingtheeffectorintentofinfluencingtheawardingofacontract.Theyshallnotoffer

      any gift or other valuable consideration in order to secure work. They shall not pay a commission, percentage, or brokerage fee in order to secure work, except to a bona fide employee or bona fide established commercial or marketing agencies retained by them.

III. ProfessionalObligations

1. Engineersshallbeguidedinalltheirrelationsbythehigheststandardsofhonestyandintegrity.
   a. Engineers shall acknowledge their errors and shall not distort or alter thefacts.
   b. Engineersshalladvisetheirclientsoremployerswhentheybelieveaprojectwillnotbesuccessful.
   c. Engineers shall not accept outside employment to the detriment of their regular work or interest. Before accepting any outside engineering employment, they will notify theiremployers.
   d. Engineers shall not attempt to attract an engineer from another employer by false or misleading pretenses.
   e. Engineers shall not promote their own interest at the expense of the dignity and integrity of the profession.
   f. Engineers shall treat all persons with dignity, respect, fairness, and withoutdiscrimination.

2. Engineers shall at all times strive to serve the publicinterest.
   a. Engineers are encouraged to participate in civic affairs; career guidance for youths; and work for the advancement of the safety, health, and well-being of theircommunity.
   b. Engineers shall not complete, sign, or seal plans and/or specifications that are not in conformity with applicable engineering standards. If the client or employer insists on such unprofessional conduct,theyshallnotifytheproperauthoritiesandwithdrawfromfurtherserviceontheproject.
   c. Engineers are encouraged to extend public knowledge and appreciation of engineering and its achievements.
   d. Engineers are encouraged to adhere to the principles of sustainable development1 in order to protect the environment for futuregenerations.
   e. Engineers shall continue their professional development throughout their careers and should keep current in their specialty fields by engaging in professional practice, participating in continuing education courses, reading in the technical literature, and attending professional meetings and seminar.

3. Engineers shall avoid all conduct or practice that deceives thepublic.
   a. Engineers shall avoid the use of statements containing a material misrepresentation of fact or omitting a materialfact.
   b. Consistent with the foregoing, engineers may advertise for recruitment ofpersonnel.
   c. Consistent with the foregoing, engineers may prepare articles for the lay or technical press, but such articles shall not imply credit to the author for work performed byothers.

4. Engineers shall not disclose, without consent, confidential information concerning the business affairs or technical processes of any present or former client or employer, or public body on which theyserve.
   a. Engineers shall not, without the consent of all interested parties, promote or arrange for new employment or practice in connection with a specific project for which the engineer has gained

particular and specializedknowledge.
b. Engineers shall not, without the consent of all interested parties, participate in or represent an adversary interest in connection with a specific project or proceeding in which the engineer has gained particular specialized knowledge on behalf of a former client oremployer.

5. Engineers shall not be influenced in their professional duties by conflictinginterests.
   a. Engineers shall not accept financial or other considerations, including free engineering designs, from material or equipment suppliers for specifying theirproduct.
   b. Engineers shall not accept commissions or allowances, directly or indirectly, from contractors or other parties dealing with clients or employers of the engineer in connection with work for which the engineer isresponsible.
6. Engineers shall not attempt to obtain employment or advancement or professional engagements by untruthfully criticizing other engineers, or by other improper or questionable methods.
   a. Engineers shall not request, propose, or accept a commission on a contingent basis under circumstances in which their judgment may becompromised.
   b. Engineers in salaried positions shall accept part-time engineering work only to the extent consistent with policies of the employer and in accordance with ethicalconsiderations.
   c. Engineers shall not, without consent, use equipment, supplies, laboratory, or office facilities of an employer to carry on outside privatepractice.

7. Engineers shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice, or employment of other engineers. Engineers who believe others are guilty of unethical or illegal practice shall present such information to the proper authority foraction.
   a. Engineers in private practice shall not review the work of another engineer for the same client, except with the knowledge of such engineer, or unless the connection of such engineer with the work has beenterminated.
   b. Engineers in governmental, industrial, or educational employ are entitled to review and evaluate the work of other engineers when so required by their employmentduties.
   c. Engineers in sales or industrial employ are entitled to make engineering comparisons of represented products with products of othersuppliers.

8. Engineers shall accept personal responsibility for their professional activities, provided, however, that engineers may seek indemnification for services arising out of their practice for other than gross negligence, where the engineer's interests cannot otherwise beprotected.
   a. Engineers shall conform with state registration laws in the practice ofengineering.
   b. Engineers shall not use association with a no engineer, a corporation, or partnership as a "cloak" for unethical acts.

9. Engineers shall give credit for engineering work to those to whom credit is due, and will recognize the proprietary interests ofothers.
   a. Engineers shall, whenever possible, name the person or persons who may be individually responsible for designs, inventions, writings, or otheraccomplishments.
   b. Engineers using designs supplied by a client recognize that the designs remain the property of the client and may not be duplicated by the engineer for others without expresspermission.
   c. Engineers, before undertaking work for others in connection with which the engineer may make improvements, plans, designs, inventions, or other records that may justify copyrights or patents, should enter into a positive agreement regardingownership.
   d. Engineers' designs, data, records, and notes referring exclusively to an employer's work are the employer's property. The employer should indemnify the engineer for use of the information for any purpose other than the originalpurpose.

Footnote 1 "Sustainable development" is the challenge of meeting human needs for natural resources, industrial products, energy, food, transportation, shelter, and effective waste management while conserving and protecting environmental quality and the natural resource base essential for future development.

"By order of the United States District Court for the District of Columbia, former Section 11(c) of the NSPE Code of Ethics prohibiting competitive bidding, and all policy statements, opinions, rulings or other guidelines interpreting its scope, have been rescinded as unlawfully interfering with the legal right of engineers, protected under the antitrust laws, to provide price information to prospective clients; accordingly, nothing contained in the NSPE Code of Ethics, policy statements, opinions, rulings or other guidelines prohibits the submission of price quotations or competitive bids for engineering services at any time or in any amount."

Statement by NSPE Executive Committee
In order to correct misunderstandings which have been indicated in some instances since the issuance of the Supreme Court decision and the entry of the Final Judgment, it is noted that in its decision of April 25, 1978, the Supreme Court of the United States declared: "The Sherman Act does not require competitive bidding."

It is further noted that as made clear in the Supreme Court decision:
1. Engineers and firms may individually refuse to bid for engineeringservices.
2. Clients are not required to seek bids for engineeringservices.
3. Federal, state, and local laws governing procedures to procure engineering services are not affected, and remain in full force andeffect.
4. State societies and local chapters are free to actively and aggressively seek legislation for professional selection and negotiation procedures by publicagencies.
5. State registration board rules of professional conduct, including rules prohibiting competitive bidding for engineering services, are not affected and remain in full force and effect. State registration boards with authority to adopt rules of professional conduct may adopt rules governing procedures to obtain engineeringservices.
6. As noted by the Supreme Court, "nothing in the judgment prevents NSPE and its members from attempting to influence governmental action . .."

Note: In regard to the question of application of the Code to corporations vis-a-vis real persons, business form or type should not negate nor influence conformance of individuals to the Code. The Code deals with professional services, which services must be performed by real persons. Real persons in turn establish and implement policies within business structures. The Code is clearly written to apply to the Engineer, and it is incumbent on members of NSPE to endeavor to live up to its provisions. This applies to all pertinent sections of the Code.

Q-1. Explain creative and critical thinking plays vital role for better communication?
The world we exists moves on basis of communication. Communication skills not only determine our relationship with others but also mould ones personality or an individual's career. Creative and critical thinking play vital role in communicating our ideas, generating new ideas and in taking decision after doing analysis of situations. Critical thinking and problems solving ability are essential skills that lead to success in professional and personal life.

<u>Creative and critical thinking</u>: Critical thinking is the intellectual and purposeful activity that involves the process of making reasoned judgment or reasoned decision It helps in conceptualizing situation, analysis skill and synthesizing. It plays vital role in evaluating information gathered from experience, observation, reflection, reasoning or communication resulted in belief, judgment, decision or action

On creative thinking, Frey writes "*as a thinking process associated with imagination, insight, invention, innovation, ingenuity, intuition, inspiration, and illumination*"
According to Beyer, creative and critical thinkers are skeptical but same time, they are open minded and have an ability to look the problems from different points of view with value fair mindedness, respect

evidence and reasoning, clarity and precision. They use argument and some appropriate criteria on conditions for their judgments. (Arguments, it is a proposition or a statement with supporting evidence). Argument play vital role for supplying reasoning to identify, evaluating and constructing judgments. It helps to develop logical reasoning that helps to examine the relationship among different statements or data. It helps creative and critical thinkers to accept the multiple points of view on the problem. Critical thinker uses many procedures such as asking questions, making judgments and identifying assumptions. When the question is asked from a critical prospective it takes time toanswer.

The proficiency in critical thinking develops an ability to understand the complex phenomena of the problems and helps to solve the complex problem or difficult issues. Creative and critical thinking enable one to look at the both sides of the problem (the negative and the positive sides) and to take appropriate decisions along with higher level of reasoning and comprehension of situations. As result of it one is able to define the problem, take the actions towards an aim, make decisions and conduct retrospective evaluation.

Steps for Improving Critical Thinking:

1. Seek out ideas - old ornew
   - In order to obtain an idea, one should develop good reading habit and should give enough chance to developcreativity,
   - Use brainstormingprocess
   - Mix and talk with other people as well as discuss it with experienced people as they have appropriate insight in theissues.
2. Take anaction:
   - Be ready to take action and challenge the assumptions as well as have courage to be different fromothers.
3. Beopenmindedandflexible:
   - Applied ideas to every facet to of your life or of your problem always ask how can this be done better. Be curious and observant just like a child, keep on askingwhy?
4. Ask goodquestions:
   - Questioning attitude will help to reflect the issue with deep sight of it. WH friends like ‘who, what, where, when, why, how’ can help one to the great extent such as who is responsible for these issue, where is the issue is occurring, what is the issue, what are the salient features of the issue, These helpers help you to analyze and to understand theissues critically.
5. Develop reflective thinking skills:
   - One should imaging about the situations as if it occurs in the reality, One need to ponder on ‘what can be the possible solution?’ and one should jump between logical thinking and imagination or wild thinking. Right brains helps in imagination while left brain in logical thinking. Jumping between these two develop or build one’s knowledge and intuition base and enhances researchandvisualizecapabilities.
6. Usetriggers:
   - Find out appropriate time and place that helps you in thinking to find out a resolution for the solution.

Process of creative Thinking

Creative thinking includes a number of ways to solve a conflict.

1. First of all, one needs to identify or recognize the root cause of the problem. All types of information need to becounted.
2. The second step is to associate with the approach towards the matter and the people involved. (This step however is risky as it is required to know the type of personalities the peoplecarry.)
3. Third is awareness of subsequent step engages in thinking or attempting to find possible solutions to determine theconflict.
4. The next step includes evaluation and finally the selection of the best solution to resolve theconflict.

According to Paul and Elder critical thinking is the process of “taking our thinking apart” along ith identify the following Elements of Thought (also known as Parts of Thinking)

1. Purpose of ourthinking
2. Questions we are trying toanswer
3. Information needed to answer thequestion
4. Inferences or conclusions we are comingto
5. Concepts or key ideas we are using in ourthinking
6. Assumptions we are taking forgranted
7. Implications of ourthinking
8. Points of View we need toconsider

In communication, the Elements of Thought guide the critical-thinking process both when a person is receiving (decoding) a message or sending (encoding) a message. The Elements provide a better understanding of the context of the information, the problem, or the decision. The 'Paul Elder Model' provides a transferable applicable guide to all disciplines. The following examples demonstrate how students may use the Elements of Thought to "take apart" their thinking to solve the problems of communication barriers. For better understanding of communication barriers, Students can ask following questions using critical and creative thinking.

- What is the purpose of learningbarriers?
- What are the causes of different types of barriers? / What is the root cause?
- How it is affecting the communication process of theorganization.
- How to overcome thisproblem?
- What information is needed to solve the problems of barriers?
- What are the points of view of different types of barriers?.

Q-1. What is technical Description? Explain the guidelines for writing good technical description.
Ans : Technical description is a key part of any descriptive technical documents as it defines object and its design, features, instruction, mechanism and/or process of the product. While writing technical description, writer should keep a purpose and a type of the audience in mind. The primary objective of technical description is to divide the complex object, process, item or topics into more manageable components. In other words it is simply breaking down large amount of information into more manageable segments or at differentlevel.

Writing technical Descriptions: The main steps involved in writing technical descriptions include naming, definition, description and illustration.
Naming:
Naming of the names helps us to understand the world around us so it will be helpful if we use the technique in description of object or process for better understanding of it.

Definition: A technical description begins with a definition of the object or process to be describe. Introductory paragraph provides general view of it that follows by a list of the components ad a brief note on the detailed description of each. It clarifies the specific meaning, often related to a specific context, or express the essential nature of the terms being defined. These can range in length from a simple clarifying phrase to an extended document of several pages. Definitions will often include detailed descriptions and visuals to illustrate ideas. For an example, digestive system.

Types of definition :
A definition fixes an object, concept or process within some system of knowing.
Definitions are of three types (1) formal (2) informal (3) Extended.

(1) Formal: A formal definition will contain the term, a category to which the terms belongs, and a set of differentia.

(2) Informal: An informal definition appears in bracket in the sentence to help the clarifyconcepts.

(3) Extended: An extended definition is a form of technical description itself and may run to tens, hundreds or thousands of pages inlength.

Descriptions: Description is the process of making an object, idea or process known to someone who is unfamiliar with it using analogies, metaphors or similes to get an idea across. A description will use words or illustrations to outline, shape, material, function and relationship of two objects. It relies upon strategies of organization such as division, classification, comparisons and contrast.

Division and classification: It is technique of breaking down complex system into more manageable component and the grouping them on based on shape, material, function and relationship of two objects. It is usually informative and analytical in nature.

Comparison and contrast: This method depends on a fixed set of criteria such as cost, practicality, efficiency etc. in order to analyse the choice presented to the user and provides analytical result.

Illustrative: It has been said that a picture can replace a thousand words but it is not case in technical description on the other hand picture and illustration enhances the meaning of the words. A prudent technical writer uses illustration /graphs/ picture to show overall view of the object or process as well as its describe its component, parts or process. Graphs can be utilize to overcome the language barriers such

as abstractness of language and when the object or process is complex and difficult to explain, however they do not definite themselves; we have to label and describe each part of the graphics based on what we want to convey Example: Describing the hockey sticks who have never seen it compare to someone who uses it professionally.

- Process Descriptions: Once the component of the object, idea or process have been described , illustrated, the last stage is to describe its process to help reader to visualize the completer functions; cycle of operation. It describes detail a series of events (natural/biological/ecological, mechanical, social, or psychological phenomenon) that happen in particular sequence in order to achieve a specific outcome. These can be categorized into non-instructional processes (such as a process analyses of how an internal combustion engine works, or natural processes like photosynthesis) and instructional process (such as recommended/required procedures and explicit step-by-step instructions to befollowed

Guideline to writing Good Description: The following are guidelines for writing technical description with respect to organization, content and structure.

1. Organization:
   1.1 Overview: Begin with brief overview that reveals theobject.
   (A) overall framework, arrangement orshape.
   (B) Purpose orfunction
   1.2 Parts: Divide the object into parts and describe eachpart.
   (A) in sufficient detail so that reader is able to use, make or drawit.
   (B) in a way that reveals its role and its relations to otherparts.
   1.3 Order: Organize the part descriptions in one of the followingorder
   (A) Spatial order (top to bottom, Outside toinside)
   (B) Priority order (most to leastimportance)
   (C) Chronological order (order of assembly ordisassembly)
2. Content
   2.1 Specifics

(A) include relevant specific features(such as size, shape, colour, material and technicalnames)

(B) Omit irrelevant background confusing details and needlesswords

- Comparison : Compare features or parts with other things alreadyfamiliar.
- Contrast : Contrast properties with the properties of others to reveal theirsignificance.

3. Structure:
   3.1 Format: Clarify the textwith

(A) heads – identify the topic with clear, nested sectionheadings.

(B) Lists – Itemize related features with indenting andmarks.
(C) Figures integrate – Integrate figures an text with labels and references.

3.2 Verbal Clues: Guide the reader thorough the instructionwith
(A) Parallelism : Use parallel words and phrases for parallelideas.

(B) Proleptics : use verbal links such as (also, but, however, moreover etc.) to signal how the description fitstogether.

CHECKLIST

As you reread and revise your instructions, watch out for problems such as the following :

- Makesureyourproviderealinstructions-explanationsofhowtobuild,operate,orrepairsomething.
- Write a good introduction in it, indicate the exact procedure to be explained and provide an overview ofcontents.
- Make sure that your use the various types of lists wherever appropriate. In particular, use numbered vertical lists for sequentialsteps.
- Use headings to mark off all the main sections and subheadings for subsections, (Remember that no heading 'Introduction' is needed between the title and the first paragraph. Remember not to use first-level headings in this assignment; start with the secondlevel.)
- Use special notices asappropriate.
- Make sure your use proper format for all headings, lists, special notices, andgraphics.
- Use graphics to illustrate any key actions orobjects.
- Provide additional supplementary explanation of the steps asnecessary.
- Remember to create a section listing equipment and supplies, ifnecessary.
- Include strong sections of definition, description, or both, as necessary, using the guidelines provided on content, organization, andformat.
- Share the draft with the people of similar aptitude and knowledge for whom the instructions are made.

Practice session

Write the technical description of Lathe/ Mouse/ Computer/ Fan etc using following the guideline such as – naming, defining, describing and illustrating

ETIQUETTES FOR SMALL TALKS

Small talk is the icebreaker that clears the way for more intimate conversation, laying the foundation for a stronger relationship. People who excel at small talk are experts at making others feel included, valued and comfortable and that goes a long way toward furthering a business relationship, closing a deal, or making a friend.

The first step is to let go of the idea that we are call somehow supposed to know how to converse with strangers and acquaintances. It's simply not true. We are not taught how to do it nor is there some biological mechanism that instinctively takes over when we find ourselves in a conversational dilemma.

We become better conversation lists when we employ two primary objectives number one : Take the risk. It is up to us to take the risk of starting a conversation with a stranger. We cannot hope that others will approach us. instead, even if we are shy it is up to us to make the first move we all fear rejection. at some level. Just remind yourself that there are more dire consequences in life than a rejection by some one in any event.

Assume the burden. It is up to each and every one of us to assume the burden of conversation. It is our responsibility to come up with topics to discuss; it is up to us to remember people's names and to introduce them to others; It is up to us to relieve the awkward moments or fill the expecting pause. Most of us hope others will assume there tasks. It is up to us to assume the burden of other people's comfort. If others are comfortable in our presence the they will feel good about doing business or socializing with us.

Small talk- a very valuable thing:
Small talk is essential for creating and enriching business relationship. Always begin and end your business conversation with small talk to humanize the relationship. Investors choose financial planners as much for their ability to make them feel secure and comfortable as they do for their financial suvvy. How importantisyourphysiciansbesidemannertoyou?Hairstylistsaretheconsummateconversationalists.

They understand that no woman will spend the better part of an hour or more sitting in a chair at the mercy of some one with a sharp instrument unless she feels comfortable! A good conversationalist frequently evokes the positive feelings that people long to have and the reality is that buyer's choices about where to spend their money are influenced by the presence or absence of rapport, small talk is a big deal because it is integral to establishing rapport parents and teachers visit before a conference to create a bond. Mortgage brokers chat with referral sources like title companies to strengthen the relationship and garner business. Even a minimal amount of pleasant small talk will make prospective customers remember you better than they remember yourcompetitor.

Harvest big gains with small talks:
Effective managers use small talk at the front end of a meeting to set the tone for discussion and to create a bridge to more meaningful, and perhaps difficult, dialogue. Casual conversation and informal icebreakers offer opportunities to build rapport, create a cohesive team, and increase the chances of success. By developing your conversation skills, you can even improve communication with your children you'll recognize the most repeated question in parenting. How was school? as a conversation killer you can avoid the usual one. Word response fine and instead create a dialogue. Imagine you may actually gain insight into what they are learning and who their friends are ! small talk is no small thing. It is a valuable personal and professional thread that connects people. Appreciating the power of small talk is the first step. By recognizing its value you will be more inclined to acquire the skills.

Talk to strangers:

To expand you circle of friends and colleagues, you must start engaging stronger and acquaintances in conversation. There is no other way. Strangers have the potential to become good friends, long term clients, valued associates and bridges to new experiences. Start thinking of strangers as people who can bring new dimensions to your life, not as persons to be feared.

Silence is impolite:

In this post modern competitive era forget that silence is golden. One porson is working as an engineer, side by side with a peer who has the same academic credentials, tenure and work quality both can be considered equal in every sense of the word. However, one is outgoing and conversational. Staff members in marketing, human resources, and quality control know his name as do executives at corporate headquarters. Our immediate supervisor noticed him and commented frequently on his work. When the time came for a promotion, he got it and the other didn't. He simply is not as visible because he is so silent. Start small talking and let others see your personality. You know how much you appreciate the efforts others put forth in conversation. Make the sameeffort.

Introduce yourself:

Don't wail for the host to come and properly introduce you to some of the other guests. Time has changed people expect you to mingle on your own, introduce yourself, and take the initiative to get acquainted. Take the risk. Walk up to someone and introduce yourself. Extend you hand, make eye contact, and smile. Find that approachable person and include him or her in conversation. Chances are, that person is feeling as alone as you are.

You can start the conversation. It is not nearly as hard as you think and the best part is that it puts you in charge of your own destiny. Instead of waiting for someone to talk to you, you choose your conversation partner. When someone gives you a smile, you are naturally inclined to smile back. Be the first to smile and greet another person. That's pretty easy. Just a smile and a few words, and it is done. Be sure that you make eye contact. That simple act is the beginning of establishing rapport.