

DIPLOMA IN ELECTRONICS AND COMMUNICATION ENGINEERING

Fifth Semester

Sub: COMMUNICATION AND ANALYSIS SKILL DEVELOPMENT PROGRAMME (CASP)

HOURS/WEEK: 06

TOTAL HOURS: 96

Competence to be developed in learners:

- I. To present orally any topic of the student's interest to the rest of the class without the assistance of media or any other aid (only talk) for at least 10 minutes creating interest in the listeners and sustaining the interest with a meaningful conclusion.
- II. To prepare a study report on any product/service in comparison with another one that is comparable from technical specification to customer satisfaction.
To present with the aid of slides (6 to 10) about the study conducted above to the rest of the class in about 10 minutes with the use of print for information and slides for graphs, pictures, images, video and animations etc.

Note to teachers:

- A teacher may guide only 6 to a maximum of ten students per year. This is to ensure active participation of each learner.
- All 96 hours need NOT be contact hours by the teacher. Students may be encouraged to do activities on their own with peer group to ensure higher level of participation.
- There are ten different tasks to be completed in the course of 96 hours. On completion of each task, record the result and the marks along with the initials of the learner for future reference, inspection and evaluation.
- A few activities are suggested under each task. Teachers can improvise on the list and add more activities as they progress from one batch to another.
- Students should not be compared with each other; instead they must be compared to the standards given against each task.
- The standard suggested is minimum requirement, learners may excel. The services of those who excel may be utilised to guide other learners to reach the suggested minimum.
- The tasks 8, 9 and 10 may be evaluated in the presence of the total group so that learners get the benefit of knowing the inferences made by others and even their presentation style.

Details of tasks must be completed:

(One group consists of maximum 6 nos.)

Task 1 – Communication skills (one to one personal communication). 6 hrs. 5 marks.

Method of achieving task: Practice in pairs through role play

Suggested activities:

1. Telephonic conversation of a customer and supplier.
2. A Consumer Electronics showroom person and a customer.
3. Negotiation between Electronics marketing representative and a technical representative.
4. Conversation between quality inspectors and the production supervisor of shop floor regarding production of quality components

Standards to be met:

- Given a telephone number, a student must be able to call and gather information from the person, sustaining the conversation for about 3 min using proper etiquettes and report on the enquiry made about the product or service. [e.g., call a toll free number to ask details about a product or service]
- Given a situation, a student must be able to talk to a person face to face in simulation, gather information about a product, discuss about it and also

negotiate with him in the specified time (here, time can be specified by the teacher as per the need).

Task 2 – Communication exercise (one to many in simulation) 6 hrs. 5 marks.

Method of achieving task: Student should pick a topic and make presentation

Suggested Activities:

1. A very short talk highlighting the features of a branded mobile phone
2. A creative advertisement sequence for a consumer electronic product being eco friendly.
3. A debate on long term effects of radiation generated by communication equipments.
4. Panel discussion on energy auditing (power saving and optimising usage).

Standards to be met:

- Given a brochure, one must be able to study about the product and understand it in 15 min and talk about it to his group highlighting its features and explain it in about 3 min.
- A student must be able to identify a topic of interest for debate, initiate the debate and carry it on, dividing the group into two based on different perspectives(e.g., For and against the topic)

Task 3 – Listening Skills:

6 hrs. 5 marks.

Method of achieving task: Listen to an advertisement and record the message

Suggested Activities:

1. View an advertisement of an electronic device and write down the message behind.
2. Listen to the audio in a promotional CD for about 15 minutes of any chosen product or service. Note down points and discuss among friends.
3. Listen to a lecture on a topic of your choice from www.academicearth.org for 30 minutes and write down the summary in a paragraph of 20 lines.
4. Listen to a lecture on environmental effects of electronic waste disposal and write down the summary in 200 words.

Standards to be met:

- Given an audio clip or a visual of an advertisement, one must be able to listen carefully and understand it enabling him to write the message behind it in the specified time (say in about 5 min.).
 - A student must be able to listen to a lecture or watch a CD for 15 min, noting down the key points and write a summary in 200 words in the next 15 min.
- Note:** Hints taken and the summary must be hand written by the student and documented for evaluation.

Task 4 – Reading skills:

6 hrs. 5 marks.

Method of achieving task: Read commercially available literature and make presentation

Suggested activities:

1. Read an article from a magazine about the concept of Just in time and supply chain management techniques in production industry in order to control the inventory and talk to the rest of the group in about 5 minutes.
2. Read an advertisement of a new released Electronic product by a company and elaborate its qualities after collecting information from a different source like the company web site and a few customers.
3. Read an article on designing of Printed Circuits from the internet and note down the steps in the process.
4. Read an article on Enterprise Resource Planning (ERP) packages from the internet and discuss the merits relevant to industry
5. Read a note on usage of automated material handling system and storage retrieval system from any technical journal and narrate in the class and narrate it.

Standards to be met:

- Given an article from a journal or an advertisement from a magazine, one must be able to comprehend it in 15 to 20 min. Later on read it out to an audience, with proper intonation and elaborate it in the next 10 min.
- Given an article from the internet, a student must be able to gather more information from the net about it, understand it and read it out for an audience and narrate it.

Task 5- Writing Skills:

12 hrs. 10 marks.

Method of achieving task: Prepare a resume in writing & highlighting the skill sets

Suggested activities:

1. Write a resume and a covering letter for three different jobs
 - 1) Wanted skilled technician for an IC fabrication industry.
 - 2) Wanted technician who is proficient in Computer Networking for an MNC.
 - 3) Wanted Service Technician for Consumer Electronics showroom.
2. Write a synopsis for given topics such as PCB Manufacturing.
3. Write a summary on latest technology in TV & mobiles.
4. Write an essay on any topic related to Electronics/IT for 150 words to 200 words.

Standards to be met:

- ❖ Given a job advertisement, a student must be able to write a suitable resume and a covering letter in 30 min [Advertisements can be tailor-made by the teacher deliberately to train their students- e.g., two different jobs like a marketing person and an assistant in a Research & Development section and train students to prepare two resume for these jobs highlighting different achievements of the student in co-curricular activities to suit each job]
- ❖ Given a topic, a student must be able to write a synopsis or summary or an essay in about 150 words in the stipulated time.

Note: All these have to be hand written by the learner and documented for evaluation.

Task 6- Knowledge of using Internet:

6 hrs. 5 marks.

Method of achieving task: Use the internet and perform the task identified

Suggested activities:

1. Creating an e-group with a free internet service provider among friends and act as a moderator in turn among a group of learners.
2. Contacting other related groups from the net and communicating to them exchanging views and ideas. Mobilising a signature campaign on the net for a common cause and redressing it to an authority.
3. Collecting data from net

For example

 - 1) Advanced fabrication technologies for IC manufacturing
 - 2) Nanotechnology as applied to electronics
4. Forwarding resumes to different jobs.

Standards to be met:

- ❖ Given an access to internet, one must be able to create an email ID, send mails, forward simple mails and also mails with attachments including scanned attachments and URL (web addresses for direct link). Also, they must be able to collect data from different websites using internet search engines and forward resumes to different job offering companies.

Note: Printouts of the mails, replies received and also the attachments with date and time have to be documented.

Task 7- Oral communication:

6 hrs. 5 marks.

Method of achieving task: Conduct group discussion on a specific topic and record the discussions

Suggested activities:

1. Debate on a current topic on long term effects of radiation from electronic gadgets.
2. Group discussion on latest developments in mobile communications.
3. Discussion on qualities required for good entrepreneur.
4. Debate on role of women in managing the industry.

Standards to be met:

- ❖ Given a topic of relevance, they must be able to form groups and discuss/debate on it. Also one must take cue and participate actively in a group discussion . Encourage students to note down the points of discussion and file the points in the portfolio for evaluation.

Task 8- Data analysis:

18 hrs. 10 marks.

Method of achieving task: Collecting market data and analysing for meaningful inferences

Suggested activities:

1. Collect data for any two products/equipments of two different producers used in manufacturing industry which includes technical details, specifications, cost and customer satisfaction.
2. Use appropriate tools and collect data from authentic sources. Depending on the source decide the number of units for collecting the data.
3. Analyse the data with a view to compare the two products/ equipments.
4. Interpret the analysis for meaningful conclusions.
5. Record the whole process for any other person to verify.

Standards to be met:

- ❖ Given two products/equipments/service, one must collect adequate information from an authentic source for each, like the company website or the printed brochure and record the specifications.
- ❖ The maintenance of quality of the product/service needs to be studied from personnel working at different levels in the company(3 -5 in number) for each product/service. A set of questions needs to be prepared for collecting data. The same questionnaire has to be used for collecting data from the personnel mentioned above.
- ❖ One must compare the two products for all the parameters based on the specifications. Also, a market survey has to be done preparing a printed questionnaire of around 5 questions and collecting responses from 20 customers. Then, analyse the data, compare them and interpret the analysis for meaningful conclusions.

Note: This being a comprehensive task may require few weeks to finish. The data collected and the analysis carried out need to be documented.

Task 9-Presentation Skills:

12 hrs. 10 marks.

Method of achieving task: Present the data collected and analysed in task 8 to a group of students.

Student should report on the activities carried out during Task 8 for about 10 minutes supported by few slides (6 to 10) of pictures, graphs, images. The text material if any may be printed and given to the audience. Discourage students from using text material in slides.

Standards to be met:

- ❖ One must present the analysis done in task 8 using slides with pictures, graphs, images etc in 10 min. The first slide may contain text only as per need but other slides should preferably have pictures and images. Usage of graphs for comparison and analysis is preferred. Text materials have to be given as handouts to the audience.

Task-10- Pick & Speak:

12 hrs. 5 marks.

Method of achieving task: Pick and speak on any topic at spot

Suggested activities

Pick a topic from a lot and student should be allowed to speak for the duration of 2 to 3 minutes without the aid of any media.

Standards to be met:

- ❖ One must be able to talk extempore for 2 min on any topic picked randomly from the lot, given a time of two minutes for organising his/her thoughts. The topics can be kept simple and general (current events of interest like cricket or tsunami). It must be totally an oral activity without the aid of any other media.

Suggested topics for presentation, discussion, and written & other skill development

- E-waste disposal
- PCB designing using soft wares
- TMT (Tread Mill Test)
- PET Scanning)
- Laser Applications
- Automotive Electronics
- Surface Mount Technology.
- Quality Certification Standards
- RTOS
- Free and Open Source Soft wares (FOSS)
- 3G & 4G mobiles
- Blackberries
- WCDMA
- Wi-fi
- VOIP
- Blue-Ray Technology
- Artificial Intelligence
- Data Compression Techniques
- Hi Speed Networks
- Embedded Systems
- ipod
- ipad
- Biometric Systems

FORMAT OF LOG SHEET *

Sl.No.	Date	Task	Progress of Task	Initials of staff in charge and the student	Evaluation (as suggested in each task)

Signature of Guide

Signature of HOD

- ❖ All documented work as described in each task need to be filed in a portfolio with task no.1 at the bottom and task 10 on top.
- ❖ The log sheet may be filed on top.
- ❖ Learners need to have only one portfolio which contains all original documents. Duplicate copies need not be maintained. This is to ensure the authenticity of data collected and the analysis conducted on the data.

SCHEME OF EVALUATION

(Total no. of students in one batch for end examination should not exceed 10)

1. Maintenance of portfolio & log book. 10
2. Evaluation of prepared report on all ten tasks 65
3. End examination:

A portfolio evaluation is recommended for the end examination evaluating the record of all ten activities of each individual learner for consistency and in case of any discrepancy the learner may be assessed on the criteria given against each task.

Marks awarded for evaluating the portfolio - 50
Total= 125.

Note to End examination evaluators:

- Check the genuineness and authenticity of all recorded activities in the portfolio.
- The learner may be asked to do one activity of the choice of the examiner which involves listening to instructions, writing a small paragraph of 50 words, reading it and talking for a few minutes.
- The learner may be asked about his satisfaction of the marks awarded and in case of any mismatch the examiner may assess his performance and alter the portfolio assessment (here the benefit of doubt may be in favour of the learner i.e., an improvement may be recorded but in case the examiner feels that the marks awarded is more the same may be retained).
- Do not compare the performance of one student with that of another.
- Always compare the performance of a learner to the given standard.
- Total time taken for the evaluation of a portfolio need not exceed 15 minutes.

Recommended text book for the prescribed syllabus:

Ashan Academy (2011), Communication and Analysis skills, Orient Blackswan, Hyderabad.

References:

1. Chakravarthi K. T. & Chakravarthi L. T. (2011), Soft Skills for Managers, biztantra, New Delhi.
2. Alex K., (2009), Soft Skills: S. Chand & company Ltd, New Delhi.
3. Pink M. A. & S. E. Thomas. : Communication Skills, S. Chand & company Ltd, New Delhi.
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5. Adler.: Communication : Goals and Approaches, Cengage Learning.
6. http://en.wikipedia.org/wiki/English_Language_Skills_Assessment
7. http://www.how-to-write-a-resume.org/resume_writing_examples.html
8. <http://www.mindtools.com/page8.html>
9. <http://lorien.ncl.ac.uk/ming/Dept/Tips/present/present.html>
10. <http://www.doaj.org/>
11. <http://www.openj-gate.com/>
12. <http://www.linuxalt.com/>
13. <http://www.linux.ie/newusers/alternatives.php>
14. <http://www.econsultant.com/i-want-open-source-software/index.html>
15. <http://www.opensourcemacs.org/>
16. <http://www.opencascade.org/>

In case during the implementation of CASP any teacher has a suggestion to improve the learners competence concerning any one of the ten tasks or any other additional one please feel free to mail to the following addresses: 1) jointdirector.cdc@gmail.com or 2) ecb@vsnl.net