

## 1.1 ENGLISH AND COMMUNICATION SKILLS - I

**L T P**  
**3 - 2**

### RATIONALE

Language is the most commonly used medium of self-expression in all spheres of human life – personal, social and professional. A student must have a fair knowledge of English language and skills to communicate effectively to handle the future jobs in industry. The objective of this subject is to enable the diploma holders to acquire proficiency, both in spoken (oral) and written language. At the end of the subject, the student will be able to develop comprehension skills, improve vocabulary, use proper grammar, acquire writing skills, correspond with others and enhance skills in spoken English. It is expected that each polytechnic will establish a **communication skill laboratory** for conducting practicals mentioned in the curriculum.

### DETAILED CONTENTS

#### 1. Facets of Literature (14 hrs)

##### 1.1 Short Stories

- 1.1.1 Homecoming – R.N. Tagore
- 1.1.2 The Selfish Giant - Oscar Wilde
- 1.1.3 The Diamond Necklace- Guy- De Maupassant

##### 1.2 Prose

- 1.2.1 I Have A Dream – Martin Luther King
- 1.2.2 On Habits – A. G. Gardiner
- 1.2.3 My struggle for An Education- Booker T Washington

##### 1.3 Poems

- 1.3.1 Ozymandias – P.B. Shelley
- 1.3.2 Daffodils – William Wordsworth
- 1.3.3 Stopping by Woods on a Snowy Evening – Robert Frost

#### 2. Grammar and Usage (10 hrs)

##### 2.1 Parts of speech

- 2.1.1 Nouns
- 2.1.2 Pronouns
- 2.1.3 Adjectives
- 2.1.4 Articles
- 2.1.5 Verbs

- 2.1.6 Adverbs
- 2.1.7 Prepositions
- 2.1.8 Conjunction
- 2.1.9 Interjection
- 2.1.10 Identifying parts of speech
- 2.1.11 Using a word as different parts of speech
- 2.2 Pair of words (Words commonly confused and misused)
- 2.3 Tenses
- 2.4 Correction of incorrect sentences
- 2.5 One word substitution
- 2.6 Forms of verbs (100 words)
- 3. Translation (04 hrs)
  - 3.1 Glossary of Administrative Terms (English/ Hindi/Urdu)
  - 3.2 Translation from Urdu into English
- 4. Paragraph of 100-150 words from outlines (08 hrs)
- 5. Comprehension (04 hrs)
 

Unseen passages of literature, scientific data/graph based for comprehension exercises
- 6. Communication (08 hrs)
  - 6.1 Definition, Introduction and Process of Communication
  - 6.2 Objectives of Communication
  - 6.3 Essentials of Communication

## LIST OF PRACTICALS

1. Locating a Book in Library
2. To look up words in a Dictionary: meaning and pronunciation of words as given in the standard dictionary using symbols of phonetics
3. To seek information from an Encyclopedia
4. Listening pre-recorded English language learning programme
5. Paper reading before an audience (reading unseen passages)
6. Study of spelling Rules
7. Study of essentials of a good speech to respond and comprehend visual, oral themes, situations or stimulus and practice before select gathering (Making an oral presentation with stress on body language and voice modulation)
8. Exercises on use of different abbreviations

9. Greetings for different occasions
10. Introducing oneself, others and leave taking
11. Exercises on writing sentences on a topic

**Note:**

1. The Text Book on “English and Communication Skills, Book-I By Kuldip Jaidka et. al. developed by NITTTR, Chandigarh is recommended to be used for teaching and setting-up the question papers.
2. A communication laboratory may be set up consisting of appropriate audio-video system with facility of playing CDs/DVDs and a video camera for recording the performance of each student with play back facility. A set of CDs from any language training organization e.g. British Council etc. may be procured for use of students.
3. Elements of body language will be incorporated in all the practicals
4. The practical exercises involving writing may also be included in Theory Examination.

## **INSTRUCTIONAL STATREGY**

Looking into the present day needs of effective communication in every field, it is imperative to develop necessary competencies in students by giving practical tips and emphasis on grammar, vocabulary and its usage in addition to practical exercises. The teacher should give report writing assignments, projects etc. while teaching this subject.

## **RECOMMENDED BOOKS**

1. English and Communication Skills, Book-I By Kuldip Jaidka, Alwainder Dhillon and Parmod Kumar Singla, Prescribed by NITTTR, Chandigarh Published By Abhishek Publication, 57-59, Sector-17, Chandigarh
2. Rich Vocabulary Made Easy by Kuldip Jaidka , Mohindra Capital Publishers, Chandigarh
3. Spoken English (2<sup>nd</sup> Edition) by V Sasikumar & PV Dhamija; Published by Tata MC Graw Hills, New Delhi.
4. Spoken English by MC Sreevalsan; Published by M/S Vikas Publishing House Pvt. Ltd; New Delhi.
5. Spoken English –A foundation course (Part-I & Part-II) By Kamlesh Sdanand & Susheela Punitha; Published by Orient BlackSwan, Hyderabad
6. Practical Course in English Pronunciation by J Sethi, Kamlesh Sadanand & DV Jindal; Published by PHI Learning Pvt. Ltd; New Delhi.
7. A Practical Course in Spoken English by JK Gangal; Published by PHI Learning Pvt. Ltd; New Delhi.
8. English Grammar, Composition and Usage by NK Aggarwal and FT Wood; Published by Macmillan Publishers India Ltd; New Delhi.
9. Business Correspondence & Report writing (4<sup>th</sup> Edition) by RC Sharma and Krishna Mohan; Published by Tata MC Graw Hills, New Delhi.

10. Business Communication by Urmila Rani & SM Rai; Published by Himalaya Publishing House, Mumbai.
11. Business Communication Skills by Varinder Kumar, Bodh Raj & NP Manocha; Published by Kalyani Publisher, New Delhi.
12. Professional Communication by Kavita Tyagi & Padma Misra; Published by PHI Learning Pvt. Ltd; New Delhi.
13. Business Communication and Personality Development by Bsiwajit Das and Ipseeta Satpathy; Published by Excel Books, Delhi
14. Succeeding Through Communication by Subhash Jagota; Published by Excel Books, Delhi
15. Communication Skills for professionals by Nira Konar; Published by PHI Learning Pvt. Ltd; New Delhi.
16. Developing Communication Skills (2<sup>nd</sup> Edition) by Krishna Mohan & Meera Banerji; Published by Macmillan Publishers India Ltd; New Delhi.
17. Effective Technical Communication By M .Ashraf Rizwi; Published by Tata MC Graw Hills, New Delhi.
18. Basic Communication Skills for Technology by Andrea J Rutherford; Published by Pearson Education, New Delhi
19. English & Communication Skills for students of Science & Engineering by SP Dhanavel; Published by Orient BlackSwan, Hyderabad.
20. Technical Communication- Principles & Practices by Meenakshi Raman & Sangeetha Sharma; Published by Oxford University Press, New Delhi.
21. Technical English by S. Devaki Reddy & Shreesh Chaudhary; Published by Macmillan Publishers India Ltd; New Delhi.
22. Advanced Technical Communication, by Kavita Tyagi & Padma Misra; Published by PHI Learning Pvt. Ltd; New Delhi.
23. Communication Skills for Engineer & Scientist by Sangeeta Sharma & Binod Mishra; Published by PHI Learning Pvt. Ltd; New Delhi.

#### SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Hrs)	Marks Allotted (%)
1	14	30
2	10	20
3	4	10
4	8	15
5	4	10
6	8	15
<b>Total</b>	<b>48</b>	<b>100</b>

## GLOSSARY OF ADMINISTRATIVE TERMS

1	1.	Senior	वरिष्ठ	اکبر
2	2.	Cashier	کاشی	مستدین
3	3.	Consent	سہمندی	آواگی - رضامندی
4	4.	Earned Leave	جما حُرڈی	جمع تعطیل - جمع چھٹی
5	5.	Under Consideration	بیچار اذہون	ذیر غور
6	6.	Criterion	کسڈی	کسڈی - معیار
7	7.	Staff	کارمبازی	طزیم
8	8.	Tenure	کارمبکاس	کڈزکڈ کی ڈڈ
9	9.	Working Committee	کارمب سبڈی	کارم کرنے والی جڈڈ
10	10.	Estate	سڈمبڈ	جڈڈ
11	11.	Self-Sufficient	آڈڈ	خود کفیل
12	12.	Emergency	ڈڈ	ڈڈ
13	13.	General Body	کارمبڈ	جڈڈ
14	14.	Exemption	خڈ	ڈڈ
15	15.	Daily-ranger	ڈڈ	ڈڈ
16	16.	Death and Retirement	ڈڈ	ڈڈ
17	17.	Despatch-Register	ڈڈ	ڈڈ
18	18.	Despatch	ڈڈ	ڈڈ
19	19.	Stenography	ڈڈ	ڈڈ
20	20.	Assurance	ڈڈ	ڈڈ
21	21.	Justify	ڈڈ	ڈڈ
22	22.	Superior	ڈڈ	ڈڈ
23	23.	High Commission	ڈڈ	ڈڈ
24	24.	Shorthand	ڈڈ	ڈڈ
25	25.	Precautionary	ڈڈ	ڈڈ
26	26.	Commendation-Bill	ڈڈ	ڈڈ
27	27.	Negligence	ڈڈ	ڈڈ
28	28.	Perseverance	ڈڈ	ڈڈ
29	29.	Proof-Reader	ڈڈ	ڈڈ
30	30.	Take Over	ڈڈ	ڈڈ
31	31.	Timely Compliance	ڈڈ	ڈڈ

32. Responsibility	जिम्मेदारी	۳۲ - ذمے داری
33. Chief Justice	मुख्य न्यायधीश	۳۳ - منصف اعلى
34. Disciplinary Action	अनुशासनिक कारवाई	۳۴ - ضابطہ عمل
35. Efficiency Bar	दक्षता रोक	۳۵ - ذخیرہ رک
36. Flying Squad	उड़न दस्ता	۳۶ - چھاپे मार दस्ते
37. Regret	खेद	۳۷ - افسوس - رنج - دکھ
38. Inconvenience	असुविधा	۳۸ - اذیت
39. Ambiguous	अस्पष्ट	۳۹ - مبہم
40. Part Time	अंशकालीन	۴० - مختصر عرصہ کے لئے
41. Academy	अकादमी	۴१ - مدرسہ
42. Disparity	असमानता	۴२ - نابرابری
43. Extraordinary	असाधारण	۴३ - عظیم - نایاب - مخصوص - علیحدہ -
44. Provisional	अस्थाई	۴४ - عارضی
45. Income Tax	आयकर	۴५ - جزیہ حقیقی
46. Bonafide	असली	۴६ - سچ
47. Acting in Official Capacity	बतौर अधिकारिक हैसियत	۴७ - سرکاری حیثیت سے
48. Contractor	ठेकेदार	۴८ - یکمشت اجرت سے کام کرنا - میکیدار
49. On probation	परिवीक्षाधीन	۴९ - امتحان پر - پربیشن پر - زیرنگرانی - ٹیسٹ के طور پر
50. State	राज्य	۵० - صوبہ - راجیہ - پرانت
51. Administrator	प्रशासक	۵१ - منصب دار
52. Admission	प्रवेश	۵२ - داخلہ
53. Aforesaid	पूर्वोक्त	۵३ - متذکرہ بالا
54. Affidavit	शपथपत्र	۵४ - حلف نامہ
55. Agenda	कार्यसूची	۵५ - کاروباری فہرست
56. Alma Mater	विद्यालय जहां किसी व्यक्ति ने शिक्षा प्राप्त की हो	۵६ - درس گاہ
57. Appointing Authority	नियुक्ति अधिकारी, मनोनीत अधिकारी	۵७ - نوکری دینے والا آفیسر
58. Apprentice	शिल्पकार, अप्रेंटिस	۵८ - زیر تربیت
59. Additional	अतिरिक्त	۵९ - زیادہ
60. Advertisement	विज्ञापन	۶० - اشتہار
61. Assistant	सहायक	۶१ - مددگار
62. Assumption of Charge	अधिकार ग्रहण करना	۶२ - باز یا فستگی یار
63. Attested copy	सत्यापित प्रति	۶३ - تصدیق شدہ نقل
64. Chief Minister	मुख्यमंत्री	۶४ - وزیر اعلیٰ
65. Clerical Error	लेखन सम्बन्धी त्रुटि	۶५ - سهو یا غلطی
66. Code	कानून की किताब, गुप्त भाषा	۶६ - قانونی کتاب - پوشیدہ اشارہ

67.	Corruption	भ्रष्टाचार, खोटापन	بے ایمانی - ۶۷
68.	Craftsman	कारीगर	کارگر - ۶۸
69.	Compensation	हरजाना, क्षतिपूर्ति	معاوضہ - ۶۹
70.	Compensatory Allowance	क्षतिपूरक भत्ता	نقصان کو پورا کرنے والا بھتہ - ۷۰
71.	Compile	संकलन करना, संग्रह करना	سنگرہ کرنا - اکٹھا کرنا - ۷۱
72.	Confidential Letter	गुप्त पत्र	تحفیہ خط (دستاویز) - ۷۲
73.	Chief Engineer	मुख्य अभियन्ता	چیف انجینئر - اعلیٰ انجینئر - ۷۳
74.	Data	स्वीकृत तत्व (आंकड़े)	اعداد و شمار - ۷۴
75.	Dearness Allowance	मंहगाई भत्ता	مہنگائی بھتہ - ۷۵
76.	Department	विभाग	محکمہ - ۷۶
77.	Dictionary	शब्द कोष	لغات - ۷۷
78.	Director	निर्देशक, संचालक	ڈائریکٹر - ۷۸
79.	Director of Tech. Edu.	तकनीकी शिक्षा निर्देशक	ڈائریکٹر تکنیکی تعلیم - ۷۹
80.	Executive Engineer	अधिकासी अभियन्ता	انتظامیہ انجینئر - ۸۰
81.	Employment Exchange	रोजगार मंडल	
82.	Head Office	मुख्य कार्यालय	
83.	Head Clerk	प्रधान क्लर्क	
84.	Indian Admin. Service	भारतीय प्रशासनिक सेवा	
85.	Legislative Assembly	विधान सभा	
86.	Officiating	स्थानस्थ	
87.	Office Record	कार्यालय रिकॉर्ड	
88.	Office Discipline	कार्यालय अनुशासन	
89.	Polytechnic	पॉलिटेक्निक	
90.	Temporary	स्थायी	
91.	Qualified	योग्यता प्राप्त	
92.	Hidden Investigation	गुप्त تحقیق	
93.	Subaltern	उप-दफतरी	
94.	Target Date	لکھنا تاریخ	
95.	Technical Approval	تکنیکی منظوری - ۹۵	
96.	Verification	تصدیق - ۹۶	
97.	Viva-Voce	زبانی امتحان - ۹۷	
98.	Write-off	وفاقی رقم برائے برائے ہوئے - ۹۸	
99.	Warning	دائرہ نگاہ اطلاع - پیٹری - ۹۹	
100.	Yours faithfully	خیر اندیش - ۱۰۰	

## 1.2 BUSINESS CORRESPONDENCE - I

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### RATIONALE

A diploma holder in Office Management and Computer Applications has to work as Private Secretary to the executives, managers and office executive in the organizations. To handle his/her job well, knowledge about techniques of correspondence is a must. In fact he/she has to acquire the skills of effective correspondence as he/she has to manage the office and has to provide help to his/her seniors and chief executives.

### DETAILED CONTENTS

**Note: Relevant theory instructions should be imparted along with the practicals in each topic.**

- |     |   |          |
|-----|---|----------|
| 1.  | Introduction to Correspondence  | (10 hrs) |
| 1.1 | Meaning and importance  |          |
| 1.2 | Process   |          |
| 1.3 | Uses  |          |
| 2.  | Essential of a good business letter   | (10 hrs) |
| 2.1 | Parts of a letter   |          |
| 2.2 | Formats/styles of a business letter   |          |
| 3.  | Enquiry letters   | (18 hrs) |
| 3.1 | Meaning and importance of business inquiries  |          |
| 3.2 | Quotation   |          |
| 3.3 | Catalogues  |          |
| 3.4 | Replies of inquiries  |          |
| 3.5 | Special terms used in business letters  |          |
| 4.  | Order letters   | (18 hrs) |
| 4.1 | Placing of an order   |          |
| 4.2 | Follow up letters   |          |
| 4.3 | Acceptance and refusal of an order  |          |
| 4.4 | Cancellation of an order  |          |
| 5.  | Complaints, Claims and Adjustments  | (20 hrs) |
| 5.1 | Complaint of late delivery  |          |
| 5.2 | Complaint of partial delivery, delivery of defective goods of inferior quality, etc |          |
| 5.3 | Adjustment in reference to the different complaints                                 |          |
| 6.  | Remittance and Collection Letters   | (20 hrs) |

- 6.1 Remittance covering the final settlement of account
- 6.2 Partial remittance
- 6.3 Total series of collection letters
- 6.4 Letter of Introduction
- 6.5 Letter of Credit

## **INSTRUCTIONAL STRATEGY**

As the business correspondence is an integral part of any office work, special attention has to be given so that the students attain proficiency in drafting different letters/documents used in the office. For achieving this objective, teachers should undertake the following actions:

- Students must be made to draft minimum 5 letters on each topic such as inquiry letters, order letters, sales letters, complaints, claims and adjustment letters, circulars, collection and remittance letters, letters of introduction, letters of credit and status inquiries etc
- Students may be asked to edit and correct a given letter with reference to layout, format, style, drafting and language. Teacher should identify other appropriate and related assignments. Some sample of good letters/documents may be collected and students should be asked to read them aloud to the whole class.

## **RECOMMENDED BOOKS**

1. Business Communication by Pradhan Bhende and Thakur; Himalaya Publishers
2. Commercial Correspondence by Mazumdar
3. Essentials of Business Communication by Reddy Appannaiah and Raja Rao; Himalaya Publishers
4. Communication Management Theory and Practice by P. Rathnaswamy; Deep and Deep Publications
5. Communication Management by Parag Diwan; Deep and Deep Publications
6. Essentials of Business Communication by P.N. Reddy, H.R. Appannaiah, B.S. Raja Rao; Himalaya Publishing House
7. Business Communication by U.S Rai and SM Rai; Himalaya Publishing House
8. Essentials of Business Communication by Rajendra Pal and J.S. Korlahali; Sultant Chand and Sons
9. Business Correspondence and Report Writing by R.C. Sharma and Krishan Mohan; Tata McGraw Hill, Reprint 1997

10. A guide to Business Correspondence by A.N. Kapoor; Sultant Chand and Sons
11. The Essence of Effective Communication by Ran Ludlow; Prentice Hall of India
12. Swamy Manual of Office Procedure by Mathur Swamy and Bindra Swamy Public
13. English Grammar Composition and Correspondence by MA.. Pink and Thomas; Sultant Chand and Sons
14. High School English Grammar and Composition by Waren and Martin
15. ABC of Common Grammatical Errors by Nicel D. Turton, Macmillan Education Limited

#### SUGGESTED DISTRIBUTION OF MARKS

<b>Topic No.</b>	<b>Time Allotted (Hrs)</b>	<b>Marks Allotted (%)</b>
1	10	10
2	10	12
3	18	20
4	18	18
5	20	20
6	20	20
<b>Total</b>	<b>96</b>	<b>100</b>

## 1.3 BASICS OF INFORMATION TECHNOLOGY

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- - 4

### RATIONALE

Information technology has great influence on all aspects of our life. Primary purpose of using computer is to make the life easier. Almost all work places and living environment are being computerized. The subject introduces the fundamentals of computer system for using various hardware and software components. In order to prepare diploma holders to work in these environments, it is essential that they are exposed to various aspects of information technology such as understanding the concept of information technology and its scope; operating a computer; use of various tools of MS Office/Open Office using internet etc. form the broad competency profile of diploma holders. This exposure will enable the students to enter their professions with confidence, live in a harmonious way and contribute to the productivity.

### Note:

**Explanation of Introductory part should be dovetailed with practical work. Following topics may be explained in the laboratory along with the practical exercises. There will not be any theory examination.**

### **TOPICS TO BE EXPLAINED THROUGH DEMONSTRATION**

1. Information Technology – its concept and scope, applications of IT, ethics and future with information technology
2. Impact of computer and IT in society.-- Computer application in office, book publishing, data analysis, accounting, investment, inventory control, graphics, air and railway ticket reservation, robotics, military, banks, Insurance financial transactions and many more
3. Generations of computer, block diagram of a computer, CPU, memory, data – numeric data, alpha numeric data; program, processing of data.
4. Computers for information storage, information seeking, information processing and information transmission, computer organization, computer hardware and software; primary and secondary memory: RAM, ROM, PROM etc. Input devices; keyboard, mouse, scanner, etc ; output devices ; VDU and Printer(Impact and non-Impact printers), Plotter etc. Primary and Secondary Storage (Auxiliary Storage), Secondary storage; magnetic disks – tracks and sectors, optical disk (CD, CD-RW and DVD Memory)
5. Introduction to Operating Systems such as MS-DOS and Windows, difference between DOS and Windows
6. Basics of Networking – LAN, MAN,WAN, Topologies

### **LIST OF PRACTICALS**

1. *Identify and list functions of various components and peripherals of given computer.*
2. Installation of operating system viz. \* Windows XP, \*Windows 2007 etc.
3. Installing a computer system by giving connection and loading the system-software and application software and various sources to install software
4. Exercises on entering text and data (Typing Practice)

### Features of Windows as an operating system

- Start , shutdown and restore
- Creating and operating on the icons
- Opening, closing and sizing the windows
- Using elementary job commands like – creating, saving, modifying, renaming, finding and deleting a file , creating and operating on a folder
- Introduction to all properties such as changing settings like, date, time, colour (back ground and fore ground)
- Using short cuts

### 5. Word Processing (MS Office/Open Office)

#### File Management:

- Opening, creating and saving a document, locating files, copying contents in some different file(s),

#### Editing a document:

- Entering text, Cut, copy, paste using tool- bars

#### Formatting a document:

- Using different fonts, changing font size and colour, changing the appearance through bold/ italic/ underlined, highlighting a text, changing case, using subscript and superscript, using different underline methods
- Aligning of text in a document, justification of document ,Inserting bullets and numbering
- Formatting paragraph, inserting page breaks and column breaks, line spacing
- Use of headers, footers: Inserting footnote, end note, use of comments
- Inserting date, time, special symbols, importing graphic images, drawing tools

#### Tables and Borders:

- Creating a table, formatting cells, use of different border styles, shading in tables, merging of cells, partition of cells, inserting and deleting a row in a table
- Print preview, zoom, page set up, printing options
- Using Find, Replace options

### 6. Spread Sheet Processing (MS Office/Open Office)

#### Starting Excel

- open worksheet, enter, edit, data, formulae to calculate values, format data, create chart, printing chart, save worksheet, switching between different spread sheets

#### Menu commands:

- Create, format charts, organize, manage data, solving problem by analyzing data, creating graphs

#### Work books:

- Managing workbooks (create, open, close, save), working in work books, Editing a worksheet:
- copying, moving cells, pasting, inserting, deletion cells, rows, columns, find and replace text, numbers of cells, formatting worksheet

#### Creating a chart:

- Working with chart types, changing data in chart, formatting a chart, use chart to analyze data
- Using a list to organize data, sorting and filtering data in list

#### Formulas:

Addition, subtraction, division, multiplication, percentage and auto sum

### 7. PowerPoint Presentation (MS Office/Open Office)

- Introduction to PowerPoint
  - How to start PowerPoint
  - Working environment: concept of toolbars, slide layout, templates etc.
  - Opening a new/existing presentation
  - Different views for viewing slides in a presentation: normal, slide sorter etc.
- Addition, deletion and saving of slides
- Insertion of multimedia elements
  - Adding text boxes, importing pictures, movies and sound, tables and charts etc.
- Formatting slides
  - Text formatting, changing slide layout, changing slide colour scheme
  - Changing background, Applying design template
- How to view the slide show?
  - Viewing the presentation using slide navigator, Slide transition
  - Animation effects etc.

### 8. Working with Data Processing (MS Office/Open Office)

- Understanding different data types
- Creation of table, entering data in a table and modify it.

- c) Retrieve data with query:
  - Create a pivot table, customizing a pivot table, statistical analysis of data
  - Exchange data with other application: embedding objects, linking to other applications, import, export document.

## 9. Internet and its Applications

- a) Log-in to internet, introduction to search engine  
Browsing and down loading of information from internet
- b) Creating E-Mail Account
  - Log in to e-mail account and Log out from e-mail account
- c) Managing E mail
  - Creating a message
  - sending, receiving and forwarding a message
  - attaching a file
  - Deleting a message

## INSTRUCTIONAL STRATEGY

Since this subject is practice oriented, the teacher should demonstrate the capabilities of computers to students while doing practical exercises. The students should be made familiar with computer parts, peripherals, connectors etc. and proficient in making use of MS Office/Open Office in addition to working on internet. The student should be made capable of working on computers independently. This subject should be taught with the help of LCD projector, while teaching a group.

## RECOMMENDED BOOKS

1. Fundamentals of Computer by E Balagurusamy, Tata McGraw Hill Education Pvt Ltd , New Delhi
2. Fundamentals of Computer by V Rajaraman; Prentice Hall of India Pvt. Ltd., New Delhi
3. Computers Fundamentals Architecture and Organisation by B Ram, revised Edition, New Age International Publishers, New Delhi
4. Fundamentals of Computer by Sumita Arora by Dhanpat Rai and Co , New Delhi
5. Computers Today by SK Basandara, Galgotia Publication Pvt Ltd. Daryaganj, New Delhi.
6. Internet for Every One by Alexis Leon and Mathews Leon; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
7. A First Course in Computer by Sanjay Saxena; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
8. Computer Fundamentals by PK Sinha; BPB Publication, New Delhi
9. Fundamentals of Information Technology by Leon and Leon; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
10. Fundamentals of Information Technology by Vipin Arora, Eagle Parkashan, Jalandhar
11. Basics of Information Technology, by Ishan Publications, Ambala
12. Information Technology for Management by Henery Lucas, 7<sup>th</sup> edition, Tata McGraw Hill Education Pvt Ltd , New Delhi.