SEMESTER I
101: Fundamentals of Information Technology
No. of credits: 5

Objectives:

The main objective is to introduce IT in a simple language to all undergraduate students, regardless of their specialization. It will help them to pursue specialized programs leading to technical and professional careers and certifications in the IT industry.

The focus of the subject is on introducing skills relating to IT basics, computer applications, programming, interactive medias, Internet basics etc.

Learning Outcomes:

At the end of this course, student should be able to

(a) Understand basic concepts and terminology of information technology.

(b) Have a basic understanding of personal computers and their operations.

(c) Be able to identify issues related to information security.

Pre-requisites:

Preliminary knowledge of computer, their operations and applications.

Text Books:

1. **Computer Fundamentals by P.K.Sinha**

Unit I: Introduction to Computers:
Introduction, Definition, .Characteristics of computer, Evolution of Computer, Block Diagram Of a computer, Generations of Computer, Classification Of Computers, Applications of Computer, Capabilities and limitations of computer.

Unit II: Basic Computer Organization:
Role of I/O devices in a computer system. **Input Units:** Keyboard, Terminals and its types. Pointing Devices, Scanners and its types, Voice Recognition Systems, Vision Input System, Touch Screen, **Output Units:** Monitors and its types. Printers: Impact Printers and its types. Non Impact Printers and its types, Plotters, types of plotters, Sound cards, Speakers.

Unit III: Storage Fundamentals:
Primary Vs Secondary Storage, Data storage & retrieval methods. Primary Storage: RAM ROM, PROM, EPROM, EEPROM. Secondary Storage: Magnetic Tapes, Magnetic Disks. Cartridge tape, hard disks, Floppy disks Optical Disks, Compact Disks, Zip Drive, Flash Drives.

Unit IV: Software:

Software and its needs, Types of S/W. **System Software**: Operating System, Utility Programs Programming Language: Machine Language, Assembly Language, High Level Language their advantages & disadvantages. **Application S/W** and its types: Word Processing, Spread Sheets Presentation, Graphics, DBMS s/w.

Unit V: Operating System:
Functions, Measuring System Performance, Assemblers, Compilers and Interpreters.
Batch Processing, Multiprogramming, Multi Tasking, Multiprocessing, Time Sharing, DOS, Windows, Unix/Linux.

Unit VI: Data Communication:
Communication Process, Data Transmission speed, Communication Types (modes), Data Transmission Medias, Modem and its working, characteristics, Types of Networks, LAN Topologies, Computer Protocols, Concepts relating to networking.

Unit VII: Business Data Processing:
Introduction, data storage hierarchy, Method of organizing data, File Types, File Organization, File Utilities.

Unit VIII: Computer Arithmetic:
Binary, Binary Arithmetic, Number System: Positional & Non Positional, Binary, Octal, Decimal, Hexadecimal, Converting from one number system to another , Converting from one number system to another , Converting from one number system to another.

SEMESTER I

102: Database Management Theory

No. of credits: 05

Objectives: This is a foundational course on Data Modeling. The course aims to impart knowledge of the concepts related to database and operations on databases. It also gives the idea how database is managed in various environments with emphasis on security measures as implemented in database management systems.

Learning Outcomes: At the end of the course, student should be able to

A) Understand the concepts of database and techniques for its management.

B) Different Data Models at Conceptual and Logical level.

C) Differentiate between the role of DBA and Data Architect

D) Understanding Data Security standards and Methods

Pre-requisites: XII Standard Mathematics

Text Books:

Korth.(2006) Database Systems Concepts , Tata McGra-Hill, Fifth Edition

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UNIT I: Introduction of Database Management System:

Difference between Data, Information, Data Processing & Data Management. File Oriented Approach, Database oriented approach to Data Management, Need for DBMS, Characteristic of Database, Database Architecture: Levels of Abstraction, Database schema and instances, 3 tier architecture of DBMS, Data Independence. Database users, Types of Database System. Database Languages, DBMS interfaces.

UNIT II: Data Modeling:

Data Models, Categories of Data Model, Logical Data Modeling: Hierarchical Data Model, Network Data Model, Relational Data Model, Advantages and Disadvantages of Logical Data Modeling. Conceptual Data Modeling: Entity Relationship Model, Entities, Attributes, Types of Attributes, Relationships, Relationship set, Degree of relationship Set, Mapping Cardinalities, Keys, ER Diagram Notations, Roles Participation: Total and Partial, Strong and Weak Entity Set.

UNIT III: Relational Algebra and Normalization:

Keys: Composite, Candidate, Primary, Secondary, Foreign, Relational Set Operations: Union, Intersect, Difference, Product, Select, Project, Divide, Assignment. Joins: Outer Joins, Inner Joins with example. Relational Algebra. CODD's Rules, Mapping conceptual model into Relational Model. Functional Dependencies, Decomposition, Lossy and Lossless Decomposition, Dependency Preserving Decomposition Advantages and Disadvantages of Normalization, Normal Forms(1NF, 2NF, 3NF, BCNF) Case Studies on Normalization.

UNIT IV: File Structures and Data Administration:

File Organization, Overview of Physical Storage Media, Magnetic Disk, RAID, Tertiary Storage, Storage Access, Data Dictionary Storage, Organization of File (Sequential, Clustering), Indexing and Hashing, Basic Concepts, indices, B+ Tree index file, B- tree index file, Static hashing, Dynamic Hashing, Data administration, Role and Responsibility of DBA, Creating/Deleting/Updating table space, Database Monitoring, User Management

UNIT V: Transaction and Concurrency Control

Single User and Multiuser systems, Multiprogramming and Multiprocessing, Basic Database access operations, Concept of transaction, transaction state, ACID properties, Schedules, Serializability of schedules., Concurrency Control, Need for Concurrency control, lock based protocols, timestamp based protocols, Multiple granularity, Multiple Version Techniques, Deadlock and its handling, Wait-Die and Wound-Wait, Deadlock prevention without using timestamps, Deadlock detection and time outs, Starvation

UNIT VI: Database Recovery and security Management:

Database Recovery, Types of Failures, Storage Structure: Volatile, Non Volatile and stable storage, Data access. Recovery and atomicity, Recovery Techniques Algorithms: Log Based Recovery, Check points, Shadow Paging, Recovery with concurrent transactions, Failure with loss of non-volatile storage, Basic data security principles, user privileges, data masking, encryption and decryption, Data security Implementation.

SEMESTER I

103: C- Programming – I

No. of credits: 05

Objectives: This is a first course in programming. The objective of this paper is to teach the Programming Language C. However, the process of learning a computer language will also be emphasized. Emphasis is also on semantics and problem solving.

Learning Outcomes:

At the end of the course a student should be able to -

(a) write good programs in C language

(b) Understand and use C libraries

(c) Effectively use of Arrays and functions

Pre-requisites: XII Standard Mathematics

Text Books:

E.Balagurusamy (2009), Programming with C , Tata McGraw Hill

Yashawant Kanetkar, let Us C, BPB Publication

UNIT I: Learning a Computer Language :

Natural Languages and Computer Languages- Symbols, Alphabet, Vocabulary and Reserved words, High level words and Identifiers, Sentences and Statements, Executable and Non-Executable Statements, Types of Executable Statements- Input Statements,

Assignment and Arithmetic Statements, Control Statements- Sequential, Selection, Iteration Statements, Output Statements, Concepts of a Program and subprogram, Procedures and functions, Syntactic, Semantic, and Logical Errors in a program, Program Correctness- Verification and Validation, Concept of Test Data

UNIT II: Introduction to computer Language C :

Concepts of Machine, Assembly, and Higher Level Languages, Origins of C, Characters and Character Set of C, Tokens in C, The function main()

UNIT III : Statements in C :

Non-executable Statements in C- Comments and Type Declarations, Data types in C, Input and Output Statements in C- scanf(), printf (),Formatted input and output statements

UNIT IV : Operators, Precedence, and Associativity :

Operators and operands, Unary and Binary Operators, Concept of Expression, Arithmetic Expressions, Relational Expressions, Assignment Expressions, Evaluation of Expressions, Concepts of Precedence and Associativity, Table of Precedence and Associativity.

UNIT V : Programming Construct :

Selection Statement in C- if, if..else, conditional operator as a simplification of if..else, Key words case, switch, break, default, go to, Iteration Statement in C- while, for statement, do..while, continue, break

UNIT VI : Concept of a function :

Function declaration, Function Definition, and Function Use, Local/public variables, Variable Scope, Function types, actual parameters, formal parameters, Call by value, Storage Classes

UNIT VII : Arrays :

Definition, Random Access to elements -Capacity, Size, Operator [ ], initializing, reading into, writing to and traversing an array, Sorting, searching using array, Two-dimensional Arrays, Arrays as arguments to functions

UNIT VIII : Strings :

Strings in C and String manipulation functions, Input, output statements for strings, String as arguments to functions, Examples on String manipulation functions

SEMESTER I

104: Principles of Management

No. of Credits: 4

Objectives:

The objective is to acquaint undergraduate students with concept of management and enable to gain the understanding of process of business management.

Learning Outcomes:

At the end of this course, student should be able to

(a) Understand the functioning of business organization and

(b) Understand the functions and process business management

Pre-requisites:

Preliminary knowledge of Business organization and its functions.

Books :

L.M. Prasad, Principles and Practice of Management, Sultan Chand and Sons.

P.C. Thripathy, P.N. Reddy, Principles of Management, Tata McGraw Hill

Syllabus

Unit 1 : Meaning, Nature, Scope and Importance – Definitions of Management, Management Vs. Administration, Levels of Management, Functions of management, Social Responsibility of Management

Unit 2 : Evolution of Management Studies – Early age, Industrial Revolution age, Scientific Management Age, Human Relations Age, Modern age

Unit 3 : Planning- Meaning, Importance, Steps involved in planning, Types of plan, Decision making

Unit 4 : Organization – Meaning, essential elements of an organization, Organization Structure, forms of organization, Authority & Responsibility, Delegation

Unit 5 : Direction – Staffing & Recruitment – sources and procedure, Co-ordination - process, Motivation- importance, difference between positive and negative motivation, leadership- functions and qualities

Unit 6: Control – meaning and characteristics of control, modern methods of control, financial control, quality control

Semester: I

105: Lab on MS-Office Suite

Credits: 2

Course Description

MS Office Suite, Introduction focuses on beginning computer concepts, Windows operating system, Internet Explorer, Word, Excel, PowerPoint, and the basic integration of the components of this integrated Microsoft application.

Prerequisites

1. No Prerequisite

Course objectives and content

Upon completion of this course students will be able to:

- Demonstrate an advanced knowledge of the Word Processing package, MS Office and a knowledge of how to design & create effective and structured documents like technical reports, letters, brochures, etc.,
- Demonstrate the skills in the appropriate use of various features of the spread sheet package MS Excel and also to create useful spreadsheet applications like tabulated statements, balance sheets, statistical charts, business statements, etc.
- Demonstrate the skills in making an effective presentation with audio and video effects using the MS Excel package
- Draw graphical pictures, flow charts, block diagrams etc., using the drawing tools available in MS Word or MS Power Point and incorporate them into documents and presentations.

Course Syllabus

Unit-1: Information Technology Essentials, Windows, and Internet Explorer

- Verify the components of a typical computer system.
- Explore, maintain files, and customize the Window operating system.
- Review using the Internet Explorer.

Unit-2: MS Word 2010

- **Introduction**
  Introduction to MSWord, Menus, Shortcuts, Document types

- **Working with Documents**
  a. Opening Files – New & Existing, Saving Files
  b. Formatting page and Setting Margins
  c. Converting files to different formats : Importing, Exporting , Sending files to others
  d. Editing text documents : Inserting , Deleting ,Cut, Copy, paste , Undo, Redo , Find, Search, Replace
  e. Using Toolbars, Ruler, Icons and help

- **Formatting Documents**
  - Setting Font Styles
    Font selection – style, size, color etc., Type face – Bold Italic, underline, Case settings, iv. Highlighting, Special symbols

  - Setting Paragraph style
    Alignments, Indents, Line space, Margins and Bullets and Numbering
  - Setting Page Style
    Formatting, Border & Shading, Columns, Header & footer, Setting Footnotes, Inserting manual Page break, Column break and line break, Creating sections and frames, Inserting Clip arts, inserting pictures and other files, Anchoring & Wrapping

  - Setting Document Styles
    Table of Contents, Index, Page Numbering, data &Time, Author etc., Creating Master Documents

- **Creating Tables**
  Table settings, Borders, Alignments, Insertion, deletion, Merging, Splitting, Sorting, Formula,

- **Drawing**
  Inserting Pictures/Files etc., Drawing Pictures, Formatting &Editing pictures, Grouping and ordering, Rotating

- **Tools**
  Word Completion, Spell Checks, Macros, Mail merge, Templates, Using Wizards, Tracking, Changes, Security

Unit-3: MS Power Point 2010

- Introduction
  Opening new Presentation, Different presentation templates, Setting backgrounds, Selecting presentation layouts

- Creating a presentation
  Setting presentation style, Adding Text to the presentation

- Formatting a presentation
  Adding style, Color, gradient fills, Arranging objects, Adding Header & Footer, Slide background, Slide layout
- Adding Graphics to the presentation
  Inserting pictures, movies, tables, etc into the presentation; Drawing Pictures using Draw

- Adding effects to the presentation
  Setting Animation & transition effect, Adding audio and video,

- Printing Handouts and Generating standalone presentation viewer

Unit-4: MS Excel 2010

- **Introduction**
  Spreadsheet & its Applications , Opening spreadsheet, Menus & Toolbars & icons, Shortcuts , Using help
- **Working with Spreadsheets**
  Opening a File, Saving Files, Setting Margins
  Converting files to different formats : i. Importing, Exporting and Sending files to others
- **Spreadsheet addressing :** Rows, Columns & Cells, Referring cells and Selecting cells
- **Entering and Editing Data:** Entering Data, Cut, Copy, paste, Undo, Redo, Find, Search & Replace
  Filling continuous rows, columns, Inserting -Data, cells, column, rows & sheets, Manual breaks
- **Computing data :** Setting Formula, Finding total in a column or row, Mathematical operations(Addition, Subtraction, Multiplication, Division, Exponentiation), Using other Formula
- **Formatting Spreadsheets:**
  Formatting – Cell, row, column & Sheet: Alignment, Font, Border & shading, highlighting values Hiding/Locking Cells

  Worksheet : Sheet Name , Row & Column Headers, Row Height, Column Width, Visibility – Row, Column, Sheet , worksheet Security

Formatting – worksheet: Sheet Formatting & style - background, color, Borders & shading

Anchoring objects, Formatting layout for Graphics, Clipart etc.,

- **Working with sheets :**
  Sorting, Filtering, Validation, Consolidation, Subtotal , Creating Charts, Selecting charts, Formatting charts, label, scaling etc.,
- **Using Tools**
  Error Checking, Spell Checks, Macros, Formula Auditing, Creating & using Templates
- Tracking changes, customization, printing worksheet

Unit- 5: Integrate Word, Excel and PowerPoint to prepare business documents.

Example List of laboratory assignments:

MS Word

1. List the names of your 15 classmates –

    1. Give Bullets
    2. Numbers
    3. Sort the names alphabetically

2. Create a 3*6 table with the following data :

Rollno	MT1	MT2
R001	86	74
R002	67	64
R003	56	78
R004	90	48
R005	67	86

    a) Insert a row at the top
    b) Type the following in the first cell of the table:
       Student Monthly Report Year 2010-2011 BVDU, IMED
    c) Merge the cells of the first row.
    d) The heading should be in bold.
    e) Apply borders to the table.
    f) Centre the data in each column.
    g) Add Shading effects to the table. (use different table formats)

3. Create given document in MS – Word and format that using all possible formatted tools in formatted tool bar.

4. Prepare your Resume.

Use following columns for Educational Qualifications

Sr. No.	**Name of Exam**	**Board / University**	**Year of Passing**	**Percentage of Marks**	**Class**
1	SSC				
2	HSC				

1) Design your Resume in attractive form.
2) Center the entire table.
3) Save your Resume.

5. Create a given document in MS-Word. Perform all the options in 'Page setup' window. Write the steps.

Route_id	Route_no	Origin	Destination	Fare	Distance	Capacity
101	33	Madurai	Madras	35	250	50
102	25	Trichy	Madurai	40	159	50
103	15	Thanjavur	Madurai	59	140	50
104	36	Madras	Bangalore	79	375	50
105	40	Bangalore	Madras	80	375	50
106	38	Madras	Madurai	39	250	50
107	39	Hydrabad	Madras	50	430	50

6. Use the following options of Table :

1. Insert, delete rows & columns
2. Table AutoFormats
3. Split & Merge Cells
4. Split table
5. Use Formula
6. Other options if any

- ❖ Sort Name Column
- ❖ Center the entire table
- ❖ Save & exit

7. Create a file in MS Word in which create Diwali greeting using Clip Art,

   Word Art & give proper message in your greeting.

8. Create a document with the name Try.doc and type the following:

   Every cloud has a silver lining.

   Absence makes the heart grow fonder

   An apple a day keeps the doctor away.

a) Change the spacing between lines to double.
b) Indent the text by 1 inch from left margin.
c) Number each line in the text (using bullets and numbering). The distance between the text and number should be set to 0.5.
d) Mark the entire text and view it with different alignment setting : centered, right-aligned, left aligned and finally make it cantered.
e) Copy & paste the above three lines so as to fit in 2nd page and save the document.
f) Number the pages as 1,2 in the document. The page number should appear in the footer area, should be right- aligment.

9. Create your bio data in MS – Word.

10. Create your time – table in MS – Word. Use options – Insert, Delete row, split and merge cells.

MS Excel

11. Create pay sheet for 5 employees.

12. Make use of the purpose of following functions in MS-Excel

ROUND(), SQRT(), MIN(), Lower(), ABS()

13. Create mark sheet for 5 students for 5 subjects in MS –Excel Calculate percentage marks. Draw graph.

Sr. no.	Subject1	Subject2	Subject3	Subject4	Subject5	Total	Percentage
1							
2							
3							
4							
5							

14. Make use of the purpose of following functions in MS-Excel

ROUND(), SQRT(), MAX(), AVERAGE(), ABS()

15. Create a list in Excel with the fields as CustCode, CustName, Address,

OrderNo, OrderAmt, Discount, Tax, Gross Amount, Net Amount.

Calculate the following as

Discount is 10% of OrderAmt

Tax is 2% of OrderAmt

Gross Amount is = OrderAmt + Tax

Net Amount = Gross Amount – Discount

16. Create Invoice in Ms Excel for particulars.

FORMAT:

Sr. No. Item Price/Unit Quantity Amount

17. Show the purpose of following functions in MS-Excel.

Max(), Count(), roman(), abs(), sqrt()

18. Create a list in excel with the fields

Semester: I

106: Lab on C Programming - I

No. of Credits: 2

Objective: The objective of this course is to develop logical abilities of students using C language as a vehicle. Students will be exposed to C programming language with an emphasis on semantics and problem solving.

Learning Outcomes:

1. provide foundation for programming
2. enable the students to analyze and efficiently solve the problems using C language

Prerequisites: XII Level Mathematics

Text Book: E. Balagurusamy, "Programming with C"

List of Laboratory Experiments:

Following is the list of problems expected to be solved using C Programming. As this list represents example problems; the problems discussed and given to solve are not restricts only to this.

1. Write a program to display "Welcome to Bharati Vidyapeeth University" on console.
2. Write a program to calculate the income-tax of an employee, where taxable income details are entered through the keyboard.
3. Write a program to calculate electricity-bill for a customer, where unit details are entered through the keyboard.
4. Write a program to display factorial of a given number.
5. Write a program to calculate a^b, where a and b are entered through the keyboard.
6. Write a program to check whether a given number is prime or not.
7. Write a program to find out series of prime numbers from a given range, where the range is entered by user.
8. Write a program to check whether a given number is Armstrong number or not.
9. Write a program to check whether a given number is Perfect or not.

10. Write a program to display all numbers between 1 and 100, which are divisible by 7.
11. Write a program to display the absent digits from a given number.
12. Write a program to print Fibonacci sequence up to a given number.
13. Write a program to convert decimal number to its binary, octal and hexadecimal equivalents.
14. Write a program to convert binary number to its decimal equivalent.
15. Write a program to reverse the digits of an integer.
16. Write a program to find LCM and GCD of given two integers.
17. Write a program to calculate prime factors of a given number.
18. Write a program to display sum of digits of given integer number.
19. Write a program to input a five digit number and display its last and first digits.
20. Write a program to convert rupees into thousands, hundreds and rupees.
21. Write a program to display the following pattern:

```
1 1 1 1 1 1
 2 2 2 2 2
  3 3 3 3
   4 4 4
    5 5
     6
```

22. Write a program to display the following pattern:

```
      1
    2 1 2
  3 2 1 2 3
4 3 2 1 2 3 4
```

23. Write a program to display Floyd's Triangle.
24. Write a function MaximumOfThree() which returns the maximum of its three parameters.
25. Write a function MinimumOfThree() which returns the minimum of its three parameters.
26. Write a function Factorial() to find factorial of given number.
27. Write a function IsPrime() to check whether a given parameter is prime or not (return 0 if prime and 1 if not).
28. Write a function SimpleInterest() to find simple interest on principal amount for N years with R rate of interest.
29. Write a function NoOfDigits() to return number of digits in given number.
30. Write a function Swap() to interchange the values of two variables.
31. Write a menu driven program using functions to calculate Square, Cube and Square-root of a given number.
32. Write a menu driven program using functions to convert a decimal number to its binary, octal and hexadecimal equivalents: DecimalToBinary(), DecimalToOctal(), DecimalToHex()
33. Write a function Pallindrome() to check whether a given number is palindrome or not (return 0 if palindrome and 1 if not).
34. Write a function to evaluate the following series up to n terms;
    1/1!+2/2!+…….+n/n!
35. Write a function Sin() to evaluate the following series up to first ten terms;
    Sin(x) = $x - (x^3/3!) + (x^5/5!) - (x^7/7!) + \ldots\ldots$
36. Write a function to check whether a given number is sum of all of its divisors, i.e. n is sum of all t such that 1<=t<n, and t divides n.
37. Write a function to calculate ${}^{n}C_{m}$.
38. Write a recursive function to find GCD of given two integers.
39. Write a recursive function to calculate factorial of a given number.

40. Write a recursive function to display first N terms of Fibonacci sequence.
41. Write a recursive function to compute sum of digits of a given integer number.
42. If A is an array of N elements then write recursive function to display the Power-set of A.
43. Write a program to copy the contents of one array into another in reverse order.
44. Write a menu driven program to insert and delete elements to an array of size N
45. Write a program to sort elements stored in an array.
46. Write a program to display all array elements in ascending order using selection sort.
47. Write a program to display all array elements in descending order using bubble sort.
48. Write a program to calculate largest and second largest from a set of N numbers.
49. Write a program to perform following operations on a matrix; addition, subtraction, multiplication, norm of matrix, saddle point, magic square, inverse and transpose
50. A square matrix, one having the same number of rows and columns, is called a diagonal matrix if it's only non-zero elements are on the diagonal from upper left to lower right. It is called upper triangular matrix if all elements bellow the diagonal are zeroes, and lower triangular matrix, if all the elements above the diagonal are zeroes. Write a program that reads a matrix and determines if it is one of the above mentioned three special matrices.
51. Write a program to read a line of characters from the user and count number of lines, words, spaces, tabs and characters in it.
52. Write a program that replaces two or more consecutive blanks in a string by a single blank. e.g. if the input is "Welcome to BVU" the output should be "Welcome to BVU".

SEMESTER I

107: General Course I

Business English

No. of Credits: 2

Objectives:

The objective is to introduce Business English to undergraduate students for effective communication in business organization.

Learning Outcomes:

At the end of this course, student should be able to

(a) Understand correct usage of English language and sentence

(b) Understand how to converse in business situations and

(c) Able to write effective e-mails.

Pre-requisites:

Preliminary knowledge of English Grammar.

Text Books:

English Grammar and Composition – Wren and Martin

Business Communication – Urmila Rai, S.M Rai, Himalaya Publication House, 9th edition

Syllabus:

Unit 1 : Correct Usage of language

Agreement of the verb with the subject, Noun and Pronouns, Adjectives, Verbs, Adverbs, Conjunctions, Order of words, Punctuation, Spelling rules, The Formation of words – Compound words – Compound nouns, Compound adjectives, compound verbs, Primary Derivatives and Secondary Derivatives

Unit 2 : Structures of sentences

Unit 3 : Business English

Dealing with people – at work, customer service; Striking conversation – courteous talk, small talk, business meetings, party talk; Eliciting Information – eliciting information on government policies, decisions, laws-right to Information Act, Eliciting information during an interview

Unit 4 : Electronic Mailing

Art of mailing right; Making accepting and turning down offers; placing orders, responses, conveying regrets, sending firm reminders, acknowledging receipt.

Unit 5: Oral proficiency

Phonetics – elementary; impromptu, Group Discussions

Unit 6 : Telephone speaking skills, Presentation skills

Reference Books :

Scott Ober – Contemporary Business Communciation, Biztara Publications

Sinha K K – Business Communication, Galgotia Publishing Company

Web References:

http://www.businessenglishsite.com/general-business-english.html

http://www.englishclub.com/business-english/

http://www.better-english.com/exerciselist.html