

## 5.1 ENGLISH AND COMMUNICATION SKILLS – III

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### RATIONALE

It is important for the diploma holders in Office Management and Computer Application to acquire proficiency in oral and written communication skills. Hence this subject is added in the curriculum.

### DETAILED CONTENTS

1. Reading Skills (12 hrs)
  - a) Newspaper reports
  - b) Newspaper editorials
  - c) A story of your choice
  - d) A prose piece of your choice
  - e) A popular poem from your high school syllabus
  
2. Oral Communication Skills (10 hrs)
  - a) Describing a railway journey
  - b) Recall your latest dream
  - c) Narrate a meeting with an interesting character
  - d) Offer for helping for someone in trouble
  - e) Seeking some one's help in a crisis
  
3. Writing Skills (14 hrs)
  - a) Developing a story from a picture
  - b) Making a précis from a paragraph
  - c) Summarizing a story as recommended by a teacher
  - d) Writing an essay of 400 words. Select a topic of your choice
  - e) Reference letters for a job
  - f) Resume writing
  
4. Grammar and Usage (12 hrs)
  - a) Phrases (100)
  - b) Idioms (100)
  - c) Narration
  - d) Forms of verbs (200)
  - e) Vocabulary (500)

## **LIST OF PRACTICALS**

The following activities be organized with the active participation of each and every student. The teacher is expected to provide feedback to each and every student for further improvement

1. Mock interviews
2. Seminars
3. Telephonic Interviews
4. Group Interviews
5. Introducing oneself and others
6. Greetings for different occasions
7. Telephone etiquette
8. Greetings for different occasions
9. Practical exercises based on oral communication skills mentioned in theory

## **INSTRUCTIONAL STRATEGY**

The teacher may encourage students to express themselves on given topics using strong vocabulary and correct grammar giving an evidence of competence in spoken and written communication skills.

## **RECOMMENDED BOOKS**

1. English and Communication Skills, Book-III By Kuldip Jaidka, Alwinder Dhillon and Parmod Kumar Singla, Prescribed by NITTTR, Chandigarh Published By Abhishek Publication, 57-59, Sector-17, Chandigarh
2. Essentials of Business Communication by Pal and Rorualling; Sultan Chand and Sons, New Delhi
3. The Essence of Effective Communication, Ludlow and Panthon; Prentice Hall of India, New Delhi
4. New Design English Grammar, Reading and Writing Skills by AL Kohli (Course A and course B), Kohli Publishers, 34 Industrial Area Phase-II, Chandigarh,
5. New Design English Reading and Advanced Writing Skills for Class XI and XII by MK Kohli and AL Kohli; Kohli Publishers, 34 Industrial Area Phase-II, Chandigarh,

6. A Practical English Grammar by Thomson and Marlinet
7. Spoken English by V Sasikumar and PV Dhamija; Tata McGraw Hill, New Delhi.
8. English Conversation Practice by Grount Taylor; Tata McGraw Hill, New Delhi.
9. Developing Communication Skills by Krishna Mohan and Meera Banerji;  
MacMillan India Ltd., Delhi
10. Business Correspondence and Report Writing by RC Sharma and Krishna Mohan;  
Tata McGraw Hill Publishing Company Ltd. New Delhi
11. Communication Skills by Ms R Datta Roy and KK Dhir; Vishal Publication,  
Jalandhar

#### **SUGGESTED DISTRIBUTION OF MARKS**

<b>Topic No.</b>	<b>Time Allotted (Hrs)</b>	<b>Marks Allotted (%)</b>
1	12	24
2	10	20
3	14	30
4	12	26
<b>Total</b>	<b>48</b>	<b>100</b>

## 5.2 MULTIMEDIA APPLICATIONS

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### RATIONALE

Multimedia is a new concept in the recent times. Now the digital technologies are being widely used in preparation of web pages, motion pictures, interactive presentations, animation etc., Multimedia has made a significant impact in the area of education and training, business presentations, public information access and many more. This course intends to introduce and expose multimedia technology and various factors and features of authoring software. It will also help in making the internet application richer in content and presentation.

#### Note:

1. **Theoretical instructions and demonstration should be dovetailed with the practical work in the multimedia laboratory for developing appropriate competencies in the use of multimedia.**
2. **There will not be any theory examination in this subject.**
3. **Since this is a practice based subject, it is suggested that teacher should first explain the theoretical background contents to the group/class. The same has to be followed by the demonstration and practice of exercises by the students in the laboratory.**

### DETAILED CONTENTS

#### I. Introduction:

Define multimedia, Explain brief history of multimedia, Elements of multimedia, Field applications of Multimedia and their importance,

#### **Practicals:**

Demonstrate the use of various multimedia elements such as text, graphics, video, audio and animation using any multimedia application.

#### II. Multimedia Hardware

Elements of multimedia system for development and for playback, Display card and Sound card, Components of multimedia systems such as Monitor, Mouse, Keyboard, Printer, Speaker, Microphone, Digital Camera, Scanner, Web Camera etc.

**Practicals**

Teacher to demonstrate and students to practice for:

- Identification of different components of multimedia computer
- Making connections and configuring various input/output devices like: scanners, Speaker, Microphone, Digital Camera, Web Camera etc.

**III Multimedia Software**

Introduction to various multimedia software for content development and presentations for multimedia applications such as Adobe Photoshop, Adobe Premier, SoundForge, Power Point, Flash, Director, Authorware , corel Draw etc.

**Practicals**

Teacher to demonstrate and students to practice the installation of various drivers and players viz. Windows Media Player, Real Time, Quick Time Players etc.

**IV Multimedia Text**

Designing text for multimedia, different fonts, Text effects using filters

**Practicals**

Teacher to demonstrate and students to practice editing text using Photoshop and application of different special effects and practice by students using different examples

**V Multimedia Graphics**

Introduction to Raster and Vector images, different colour models, revolution of images 2-D and 3-D graphics. Different file format, images like .bmp, .jpg, .psd, .tiff etc.

**Practicals**

Teacher to demonstrate and students to practice:

- the use of scanners for scanning images and photographs.
- the use of digital camera for capturing digital images.
- the editing of various Raster and Vector images using Photoshop or Paint Shop-Pro/illustrator softwares and explain resolution and colour modes using different images.

**VI Multimedia Audio**

Introduction to Digital Audio Technology and different sound file formats

**Practicals**

Teacher to demonstrate and students to practice for:

- recording and playing digital audio using any sound recording device through different examples.
- editing of audio files using sound forge, soundHack etc.

**VII. Multimedia Video**

Introduction to digital video fundamentals, different video file formats, frame rate, image size and colour depth etc.

**Practicals**

Teacher to demonstrate and students to practice:

- Capturing digital video, editing it using software like Adobe Premier
- Embedding a video file in multimedia application

**VIII Multimedia Animation**

Define animation, Different animation techniques, Introduction to 2-D and 3-D Animation, Different file formats like .gif, .swf etc.

**Practicals**

Demonstration of basics of animation using software like Flash and Practice by students using different examples.

**IX Multimedia Applications**

Introduction to multimedia project designing concepts, story boarding techniques, project planning and costing techniques.

Introduction to multimedia authoring tool like Director/Authorware/Dreamweaver for integration and presentation of multimedia elements.

**Practicals**

Teacher to demonstrate and students to practice in:

- Designing of web page/site using various multimedia elements
- Preparing Multimedia presentation using Power point
- Developing any animated movie using flash]
- Brochure designing using Corel Draw

**In addition to above the students must be made confident to:**

- install and configure multimedia devices such as Scanner, Digital Camera and, web camera, Mike and speakers, Touch screen, Plotter and printers to the computer
- Transport audio and video files using various features of Director, Flash or Photo-shop
- Make multimedia presentations by combining Director, Flash, photo-shop such as department profile, lesson presentation, games and project presentation etc

## **INSTRUCTIONAL STRATEGY**

Since this is a practice based subject, more emphasis should be given on students to do the work practically. The teacher should explain the concepts and features of multimedia while giving demonstration. The features of software packages viz. Photoshop, Flash and Director are to be first demonstrated in class using LCD projector before allowing students to practice on it.

## **RECOMMENDED BOOKS**

1. Multimedia - An Introduction by Villiam Casanova and Molina: Prentice Hall of India, New Delhi
2. Multimedia Bible by Win Rosch
3. Multimedia Making it work by Vaughan, Tay
4. Director and Lingo Bible by John and Nyquist and Rober Marlin, IDG Books India Pvt. Ltd.
5. Mastering Macro Media Director 5 by Feudnon, BPB Pub lication, New Delhi
6. Photo-shop for Windows Bible by Deke Maclelland, IDG Books India Pvt. Ltd. New Delhi
7. Multimedia Technology and Application by Hillman, Galgotia Publications, New Delhi
8. Flash 5 Bible by Rein Hardit, IDG Books India Ltd.
9. Flash 5 in easy steps by Vandome IDG Books Pvt. Ltd.
10. Mastering Corel Draw 3, Rimmer, Steave Tech. Publications, Singapore

### 5.3 STENOGRAPHY (English) -V

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#### RATIONALE

Five minutes and ten minutes speed tests (attainment is develop ability to take notes in neat accurate style at the rate of 80 W.P.M. and transcription of the same at the rate of 20 words per minute.

#### DETAILED CONTENTS (LIST OF PRACTICALS)

1. Business Phrases
2. Political Phrases
3. Banking Phrases
4. Stock Broking Phrases
5. Insurance Phrases
6. Shipping Phrases
7. Technical Phrases
8. Railway Phrases
9. Legal Phrases
10. Theological Phrases
11. Special list of words
12. Practice Important names of Indian cities and Personalities
13. Special list of Contractions
14. Unseen passages from different shorthand magazines and books, newspapers etc.

#### ASSIGNMENTS

Dictation upto exercise 231 book from Pitman Shorthand Reading & Dictation Exercises

Attainment of Shorthand Speed : 80 WPM - to be Transcribed @ 20 WPM

Desirable Attainment of Speed 80-100 in shorthand

Desirable Attainment of Typewriting- 30- 40 WPM

## **PRACTICAL FOR EXAMINATION**

- One seen Paragraph from book and one unseen paragraph will be set in the paper.
- Unseen Paragraph should comprise of words which are within the exercises of Pitman Shorthand book up to exercise 231. Unseen paragraphs should not have too many figures, Names and Capital letters and should comprise advanced phrases and contractions.

## **INSTRUCTIONAL STRATEGY**

The teacher should make sure that while forming the upward and downward forms of strokes, the position of the hand of the student moves in the right direction. While giving dictation in the class, the teacher should keep moving and should ensure the right movement of outlines. Each exercise should be read by each student fluently before taking dictation of the same exercise. Student must take dictation first in shorthand and later transcribe the same in long hand on typewriter/computer. Each exercise should be read by each students fluently before giving dictation of the same exercise.

## 5.4 BUSINESS ORGANIZATIONS AND BUSINESS ENVIRONMENT

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### RATIONALE

The study of the subject is very important for the student of this diploma in understanding the various types of business organizations. The course includes nature, scope and form of business organizations. Since the students have to work in the capacity of personal secretary/office assistant the knowledge of different forms of business organization and qualities of a successful businessman.

The Growth of industry and business depends upon various other factors apart from the efforts put in by the entrepreneur. To know these forces, it is essential to understand the economic trends and other factors, which have direct or indirect influence on the business. Similarly the industry is governed and controlled by various aspects on environment. An idea about these environment aspects shall be an added advantage for the diploma holder in Office Management and Computer Application. Hence this subject is included in the curriculum

### DETAILED CONTENTS

1. Nature And Scope Of Business Organizations (20 hrs)
  - 1.1 Meaning and scope of business
  - 1.2 Business and profession
  - 1.3 Requisites of a successful business
  - 1.4 Qualities of a good businessman
  
2. Business Size (10 hrs)
  - 2.1 Problems in starting a new business
  - 2.2 Merits and Demerits of large scale business organizations
  - 2.3 Concept of Optimum firm
  
3. Forms of Business Organization (16 hrs)
  - 3.1 Sole proprietorship
  - 3.2 Partnership
  - 3.3 Joint-stock companies and types of companies
    - 3.3.1. Private Limited Companies-features
    - 3.3.2. Public Limited Companies - Features
  
4. Finance (14 hrs)
  - 4.1. Meaning and importance of finance

- 4.2 Determining the Capital requirements of a small business enterprise (only theory)
- 4.3 Sources of capital - Own and Borrowed : shares, debentures and Bank loans (only outlines)
- 5. Elements of Business Environment (16 hrs)
  - 5.1 Meaning and importance of business environment
  - 5.2 Factors influencing business environment (economic and non economic)
  - 5.3 Social responsibilities of business
- 6. Economic System (20 hrs)
  - 6.1 Meaning and scope of economic system
  - 6.2 Features, merits and demerits of Capitalistic, Socialistic and Mixed economic systems (only outlines).

### **INSTRUCTIONAL STRATEGY**

Experts from different organization may be invited to deliver lectures on importance requirements of Business Environment and economic system prevailing in the country. The students may be encouraged to meet some successful businessmen of the area to know how they were successful

### **RECOMMENDED BOOKS**

1. Business Organisation and Management Theory by Shashi Gupta & RK Sharma, Kalyani Publication
2. Business Environment by Rosy Joshi and Sangam Kapoor ( Kalyani Publication)

### **SUGGESTED DISTRIBUTION OF MARKS**

<b>Topic No.</b>	<b>Time Allotted (Hrs)</b>	<b>Marks Allotted (%)</b>
1	20	20
2	10	10
3	16	20
4	14	15
5	16	20
6	20	15
<b>Total</b>	<b>96</b>	<b>100</b>

## 5.5.1 HINDI TYPING

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### RATIONALE

The theoretical and Practical knowledge about computer and its controls will help the student in performing speedily, efficiently & neat typing, storing files, work designing etc. in modes official working pattern instead of manual typewriter. The student having sufficient knowledge of office correspondence, drafting of letter's will prove useful in actual working atmosphere.

### DETAILED CONTENTS

1.	कम्प्यूटर के टाइपिंग सीखने के लाभ एवं उपयोगिता	2 घंटे	
2.	कम्प्यूटर के सम्मुख बैठने की स्थिति	2 घंटे	
3.	कम्प्यूटर के बाहरी भागों का प्रारम्भिक ज्ञान	2 घंटे	
4.	कुंजीपटल संचालन की जानकारी		
4.1	आधार पंक्ति		4 घंटे
4.2	प्रथम पंक्ति	4 घंटे	
4.3	द्वितीय पंक्ति		4 घंटे
4.4	नम्बर पंक्ति, बैक स्पेस, कैप्स, ऐरो, एन्टर, इन्ड	4 घंटे	
4.5	शिफ्ट की Key का प्रयोग, Tab Key का प्रयोग	4 घंटे	
5.	टंकण कल की प्रणालियों की जानकारी (स्पर्श प्रणाली के लाभ एवं विशेषताएं)	2 घंटे	
6.	कम्प्यूटर के रख-रखाव/साफ सफाई की जानकारी	2 घंटे	
7.	कम्प्यूटर को खोलना/बन्द करना एवं ठसंदा क्वबनउमदज को लेना	4 घंटे	
8.	हाशिया निर्धारण		
8.1	उपरी हाशिया		2 घंटे
8.2	नीचे वाला हाशिया	2 घंटे	
8.3	बायां हाशिया		2 घंटे
8.4	दायां हाशिया		2 घंटे
8.5	शीर्षक टंकित करना	2 घंटे	
8.6	दायां एक समान हाशिया निर्धारण	2 घंटे	
8.7	अशुद्धियों को ठीक करना	2 घंटे	
9.	विराम चिन्हों का उचित करना		
9.1	पूर्ण विराम, अर्ध विराम, अल्पविराम, प्रश्नवाचक चिन्ह, अवतरण चिन्ह, योजक चिन्ह, इन्वर्टेड कोमा, विस्मयाधिबोधक चिन्ह, कोष्ठक आदि ।	4 घंटे	
10.	डाक्यूमेंट को सेव करना, फांट बदलना, साइज बदलना	4 घंटे	
11.	विभिन्न उर्हरण का अभ्यास करना	4 घंटे	
12.	पत्रों को टंकित अभ्यास करना	4 घंटे	

- 12.1 व्यक्तिगत पत्र
- 12.2 व्यापारिक पत्र
- 12.3 शासकीय पत्र जैसे परिपत्र, अनुस्मारक, पृष्ठांकन
- 12.4 अर्धशासकीय पत्र, कार्यालय आदेश, निविदा सूचना आदि

परीक्षा: 15 शब्द प्रति मिनट की गति से 150 शब्द की एक उर्दरण एवं एक व्यक्तिगत पत्र, 10 शब्द प्रति मिनट की गति से बोर्ड द्वारा निर्धारित अंक और समय अनुसार

## 5.5.2 INTERNET AND NETWORKING

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### RATIONALE

Internet technology has become an integral part of education system. The aim of this module is to enable the student to efficiently use Internet and also understand the basic Internet Technology.

### DETAILED CONTENTS

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

#### 1. Introduction to Internet

Internet, Growth of Internet, Owners of the Internet, Anatomy of Internet, ARPANET and Internet history of the World Wide Web, Basic Internet Terminology, Net etiquette. Internet Applications-commerce on the Internet, Governance on the Internet, Impact of Internet on Society-Crime on/through the internet

#### 2. Internet Technology and Protocols

- Getting connected, items needed to connect levels of connectivity
- Introduction to Internet Protocols, TCP/IP; IP Address and its format, SLIP, PPP
- Network and Network devices: Network Architecture, Network Topologies
- Characteristics of Local Area Network and Wide Area Network; Protocols and Media, Implementation, Transmission, Access method and Technologies
- Addressing in Internet: DNS Domain name and their organisation, understanding the internet protocol address
- Client Server Concepts, their art and applications

#### 3. World Wide Web

Evolution of WWW, Basic features, WWW Browsers, WWW servers, HTTP, Universal Resource Locator (URL), Search Engines and their Categories, Searching Criterion, WWW and Hypertext.

4. Browsers

Basic features, Bookmarks, history, Progress indicators, Customization of browsers, Saving and Printing web pages, Netscape Communicator, Internet Explorer.

5. Electronic Mail

- Introduction to e-mail, E-mail networks and Servers, Email protocols-SMTP, POP3
- Structure of an Email, Email Address, Email Header, Body and Attachments.
- Email Client: Netscape Mail Clients, Outlook Express, Web based E-mail. Email encryption-Address Book, Signature File.

6. File Transfer Protocol (only concepts)

Introduction to FTP and Terminology, FTP Servers and Authentication, GUI Based FTP Clients, Browser Based FTP Clients, overview of Telnet, Telnet protocol

### **LIST OF PRACTICALS**

1. Browsing Internet
2. Using Search Engines
3. Creating E-mail Account and Sending E-mail using Netscape Mail Clients and Outlook Express respectively
4. Using FTP and Telnet

### **INSTRUCTIONAL STRATEGY**

This is a practice-oriented subject. Teachers should provide theoretical instructions along with the practical. Students should be given sufficient time and opportunity to master knowledge and skills in operating computers and teacher should closely watch and guide the students throughout the practical sessions, till students achieve appropriate level of competency.

The concept of data processing, storage of data and its retrieval should be made clear to the student, before the practical work actually starts. Teacher should give repetitive exercises to the students to enable them to excel in the field of data processing techniques and desk top publishing.

## **RECOMMENDED BOOKS**

### **MAIN READING**

1. B. Underdahle and K. Underdahle, “ Internet and Web Page/Website Design,” Second Edition, 2001 , IDG Books India (P) Ltd.,
2. D. Comer, “The Internet Book”, Second Edition, 2001, Prentice Hall of India

### **SUPPLEMENTARY READING**

1. M..L. Young,” The Complete reference of Internet”, 2002, Tata Mc Graw Hill.
2. J. Sklar,” Principles of m Web Design”, Second Edition, 2001, Vikas Publishing House Pvt, Ltd.,
3. W.G. Lehnert, “Internet 101, First Edition, 2001, Person Education.
4. Sanjay Pahu, “Data Communications and Computer Networking”, Standard publication, New Delhi.

### 5.5.3 PROGRAMMING AND PROBLEM SOLVING THROUGH VISUAL BASIC

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#### RATIONALE

“C” is the primary programming language through which problems can be solved. This module enables the students to learn programming and problem solving through Visual Basic.

#### DETAILED CONTENTS

**Note: Relevant theory should be taught along with practical exercises in each topic.**

1. Integrated Development Environment
2. Managing Projects
3. Visual Basic Programming Element
4. Working with Forms
5. Basic Active X Controls
6. Advanced Active X Controls
7. Graphics with Visual Basic
8. Multiple Document Interface
9. Error Handling
10. Data Base Programming with Visual Basic
11. Working with Crystal Reports and Overview of VB-Net Technology

#### LIST OF PRACTICALS

1. Program to display current date and time inform
2. Develop an application for a calculator performing addition, multiplication, division, subtraction and percentage using command buttons
3. Develop an application to illustrate the drag and drop operation
4. Develop an application to create menu control arrays at run time
5. Develop an application for database connectivity and report generation

## **INSTRUCTIONAL STRATEGY**

This is a practice-oriented subject. Teachers should provide theoretical instructions along with the practical. Students should be given sufficient time and opportunity to master knowledge and skills in operating computers and teacher should closely watch and guide the students throughout the practical sessions, till students achieve appropriate level of competency.

The concept of data processing, storage of data and its retrieval should be made clear to the student, before the practical work actually starts. Teacher should give repetitive exercises to the students till they excels in handling and operating e-mail, teleconferencing, local area networks and software packages in accountancy

## **RECOMMENDED BOOKS**

### **MAIN READING**

1. Mastering Visual Basic by E. Petroustos
2. Programming in Visual Basic Ver 6.0 by Bradley

### **SUPPLEMENTARY READING**

1. Programming in Visual Basic by PK Mbride
2. Learn MS Visual Basic 6.0 Now by M Halvorson
3. Visual Basic 6 by HM Deitel, TR Nieto
4. Introduction to OOP and VB by VK Jain

## 5.6 BUSINESS LAWS

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### RATIONAL

The study of the subject is important for the students of this diploma in understanding the various Business Laws affecting the day-to-day working of the business. Since the students have to work in capacity of legal assistant, the knowledge of latest business Laws and amendments are essential. In these deep business is governed by different business Laws so students have to be made familiar with some important Laws.

### DETAILED CONTENTS

1. Income Tax Act (12 hrs)
  - 1.1 Meaning of income and objectives of income tax
  - 1.2 Heads of taxable income (only outlines)
  - 1.3 Definition of salary, allowances and requisites, Deductions.
  - 1.4 Elementary knowledge of filing of income tax return of salary Income
  
2. Factories Act, 1948 (12 hrs)
  - 2.1 Introduction- Definition of factory, worker, Employers
  - 2.2 Main Provisions of health, safety, welfare, working hours, and leave under factory Act.
  
3. Contract Act (16 hrs)
  - 3.1 Introduction and Definition
  - 3.2 Essential of valid contract
  - 3.3 Classification of contract
  
4. Consumer Protection Act, 1986 (14 hrs)
  - 4.1 Introduction, Objectives and Scope of Act.
  - 4.2 Definition- Consumer Complaint and dispute, Restrictive Trade practice, Unfair Trade Practices
  - 4.3 Consumer Disputes Redressal Agencies:-
    - (i) District Forum
    - (ii) State Commission
    - (iii) National Commission

5. Introduction and importance of cyber laws (08 hrs)
6. Right to Information Act 2005 (10 hrs)
  - 6.1 Meaning and Importance
  - 6.2 Process of acquiring Information
  - 6.3 Duties and Responsibilities of Public Information Officer (PIO's), Central Public Information Officer. (CPIO's)
7. Intellectual Property Right (IPR) (08 hrs)
 

Introduction, scope, importance and Elementary knowledge about registration procedure of:

  - 7.1 Copyright
  - 7.2 Patents
  - 7.3 Trade Marks

### **INSTRUCTIONAL STRATEGY**

Experts from legal professionals may be invited to deliver lectures on above laws to enhance the knowledge of the students. Respective Laws should be explained with the help of examples of the case studies or the decisions given by the consumer forum from time to time.

### **RECOMMENDED BOOKS**

1. Business regulatory Framework by Chawala, Garg and Mukesh Sharma (Kalyani Publishers, Jalandhar)
2. Business Regulating Framework – Dr. V.K Sharma, Sharma Publications, Jalandhar
3. Income Tax by Jain & Narang ( Kalyani Publishers, Jalandhar)
4. Industrial & Commercial law by Chawla, Garg and Mukesh Sharma ( Kalyani Publication)

### **SUGGESTED DISTRIBUTION OF MARKS**

<b>Topic No.</b>	<b>Time Allotted (Hrs)</b>	<b>Marks Allotted (%)</b>
1	12	16
2	12	16
3	16	20
4	14	16
5	08	10
6	10	12
7	08	10
<b>Total</b>	<b>80</b>	<b>100</b>

## 5.7 ENVIRONMENTAL EDUCATION

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### RATIONALE

Education about environment protection is a must for all the citizens. In addition, a diploma holder must have knowledge of different types of pollution caused by industries and construction activities so that he may help in balancing the eco system and controlling pollution by adopting pollution control measures. He should also be aware of environmental laws related to the control of pollution.

### DETAILED CONTENTS

1. Definition, Scope and Importance of Environmental Education (02 hrs)
2. Basics of ecology, biodiversity, eco system and sustainable development (03 hrs)
3. Sources of pollution - natural and manmade, causes, effects and control measures of pollution (air, water, noise, soil, radioactive and nuclear) and their units of measurement (12 hrs)
4. Solid waste management – Causes, effects and control measures of urban and industrial waste (06 hrs)
5. Mining and deforestation – Causes, effects and control measures (04 hrs)
6. Environmental Legislation - Water (prevention and control of pollution) Act 1974, Air (Prevention and Control of Pollution) Act 1981 and Environmental Protection Act 1986, Role and Function of State Pollution Control Board, Environmental Impact Assessment (EIA) (10 hrs)
7. Role of Non-conventional Energy Resources (Solar Energy, Wind Energy, Bio Energy, Hydro Energy) (04 hrs)
8. Current Issues in Environmental Pollution – Global Warming, Green House Effect, Depletion of Ozone Layer, Recycling of Material, Environmental Ethics, Rain Water Harvesting, Maintenance of Groundwater, Acid Rain, Carbon Credits. (07 hrs)

### INSTRUCTIONAL STRATEGY

The contents will be covered through lecture cum discussion sessions. In addition, in order to have more appreciation of need for protection of environment, it is suggested that different activities pertaining to Environmental Education like video films, seminars, environmental awareness camps and expert lectures may also be organized.

## RECOMMENDED BOOKS

1. Environmental Engineering and Management by Suresh K Dhameja; SK Kataria and Sons, New Delhi.
2. Environmental Science by Dr. Suresh K Dhameja; SK Kataria and Sons, New Delhi.
3. Environmental and Pollution Awareness by Sharma BR; Satya Prakashan, New Delhi.
4. Environmental Protection Law and Policy in India by Thakur Kailash; Deep and Deep Publications, New Delhi.
5. Environmental Science by Deswal and Deswal; Dhanpat Rai and Co. (P) Ltd. Delhi.
6. Engineering Chemistry by Jain and Jain; Dhanpat Rai and Co. (P) Ltd. Delhi.
7. Environmental Studies by Erach Bharucha; UGC University Press.

## SUGGESTED DISTRIBUTION OF MARKS

<b>Topic No.</b>	<b>Time Allotted for Lectures (Periods)</b>	<b>Marks Allotted (%)</b>
1	02	04
2	03	06
3	12	24
4	06	12
5	04	10
6	10	20
7	04	10
8	07	14
<b>Total</b>	<b>48</b>	<b>100</b>

## **ENTREPRENEURIAL AWARENESS CAMP**

This is to be organized at a stretch for two to three days during fourth semester. Lectures will be delivered on the following broad topics. There will be no examination for this subject

1. Who is an entrepreneur? What skills are possessed by successful entrepreneurs?
2. Need for entrepreneurship, entrepreneurial career and wage employment
3. Scenario of development of small scale industries in India
4. Entrepreneurial history in India.
5. Assistance from District Industries Centres, Commercial Banks, State Financial Corporations, Small industries Service Institutes, Research and Development Laboratories and other financial and development corporations
6. Considerations for product selection
7. Opportunities for business, service and industrial ventures
8. Learning from Indian values and experiences in entrepreneurship (Interaction with successful entrepreneurs in the region)
9. Legal aspects of small business
10. Managerial aspects of small business