

COURSE ID: 11

Course Name : GENERIC SKILLS
Course Code : CCE201
Course Abbreviation : EGNS

TEACHING AND EVALUATION SCHEME:

Pre-requisite Course(s) : < nil >

Teaching Scheme:

Scheme component	Hours / week	Credits
Theory	02	04
Practical	02	

Evaluation Scheme:

Mode of Evaluation	Progressive Assessment		Term End Examination			Total
	Theory	Practical	Theory Examination	Term Work	Practical Examination	
Details of Evaluation	NIL	i. 25 marks for each practical ii. One PST of 25 marks	Term End Theory Exam (03 hours)	Pro-forma VI	Pro-forma V	
Marks	NIL	--	NIL	25	50	75

RATIONALE:

Acquisition of technical and entrepreneurial competencies is founded on certain generic skills that are fundamentally essential for all disciplines of technology. Considering the age group and socio-economical background of the students of the Institute, a set of minimum essential generic skills has been identified and categorized as i) Concentration skills, ii) Language skills, iii) Learning Skills, iv) Aesthetic Skills, v) Behavioral Skills and vi) Creativity Skills. These generic skills will be studied and practiced in this course. Communication Skills form another major category of generic skills which shall be studied in separate course named *Communication Skills*. For mastery and perfection in these skills, consistent practice and an integrated application is necessary in all subjects of the Programme. Generic skills are essential to improve the overall quality of learning of the student for all the subjects.

OBJECTIVES: On completion of this Course, the student is expected to be able to

1. Enlist and appreciate generic skills necessary for a technician
2. Analyze his own learning process with reference to domain analysis and FIPN model
3. Attain concentration through thought analysis, omkar, pranayam, prayer and meditation
4. Exhibit language skills viz. vocabulary, recitation, sentence making skills
5. Exhibit learning skills, studying skills and technical skills viz. calculating, graphic skills
6. Exhibit aesthetic skills, behavioral skills and creativity skills

CONTENT:

A. THEORY :

Sr. No.	Topics / Sub-topics	Lectures (Hours)
1	<p>Overview of generic skills</p> <p>1.1 Definition of generic skills, life skills, soft skills. Difference between generic skills and specialized skills</p> <p>1.2 Important generic skills for technicians : Concentration skills, learning skills, language skills, communication skills, aesthetic skills, behavioral skills, creativity skills</p> <p>1.3 Importance of generic skills</p>	02
2	<p>Concentration Skills</p> <p>2.1 Concentration of mind : Meaning and importance. Hurdles and common remedies.</p> <p>2.2 Thoughts : Intensity, speed and duration of thoughts. Positive, negative and neutral thoughts. Emotions. Management of thoughts.</p> <p>2.3 Concentration skills : Breathing exercises and <i>pranayam</i></p> <p>2.4 Concentration skills : Chanting <i>omkar</i></p> <p>2.5 Concentration skills : Prayer - Daily input of positive Thoughts</p> <p>2.6 Concentration skills : Meditation</p>	06
3	<p>Learning Skills</p> <p>3.1 Fundamentals of Learning : Definition, characteristics and rewards of learning. Affective, cognitive and psychomotor domains of learning. Barriers in learning. FIPN analysis.</p> <p>3.2 Process of Learning : Reception, understanding, consolidation, retrieval, internalization, application, reinforcement and enhancement</p> <p>3.3 Learning Skills: Skills of observing, listening, reading, notes taking, memorizing, problem solving, graphic, experimenting, surveying, calculating skills, Cognitive skills.</p> <p>3.4 Studying skills : Planning and scheduling, Methods of study as per nature of subject content.</p> <p>3.5 Self-motivation: Meaning and importance. Improving self-motivation through activities like inspiring case studies, web search & presentation, technical quiz/games, group studying, making videos, industry exposure</p>	08
4	<p>Language Skills</p> <p>4.1 Vocabulary. Pronunciation. Spellings. Recitation.</p> <p>4.2 Listening and recitation</p> <p>4.3 Elements of grammar: common rules. Comprehension. Expressing self.</p> <p>4.4 Word games</p>	06
5	<p>Aesthetic Skills</p> <p>5.1 Sense of aesthetics. Appearance. Neatness. Decency. Sense of colours and graphics</p> <p>5.2 Application of aesthetics in appearance, work, note book and paper writing, submission work</p>	02

Sr. No.	Topics / Sub-topics	Lectures (Hours)
6	Behavioral Skills 6.1 Manners and etiquettes. Discipline. Sincerity. Morales. Politeness. Social and civic sense. Assertion without aggression.	04
7	Creativity Skills 7.1 Meaning and importance of creativity. 7.2 Doing things creatively.	04
	TOTAL	32

B. TERM WORK

Practical Exercises and related skills to be developed:

The following practical exercises shall be conducted as Term Work detailed in the *Workbook on Generic Skills* developed by the Institute in practical sessions of batches of about 22 students:

Sr. No.	Title of the Lab work	Skills / Competencies to be developed
1.	Introduction Game	Self-expression, inter-personal rapport
2.	Concentration Skills - 1: Chanting of Omkar	Concentration
3.	Concentration Skills - 2: Breathing exercises	Concentration
4.	Concentration Skills - 3: Prayer	Concentration, recitation, positive thinking
5.	Concentration Skills - 4: Meditation	Concentration, thought management
6.	Language Skills - 1 : Vocabulary Exercise	Vocabulary improvement
7.	Language Skills - 2 : Recitation Exercise	Pronunciation, language acquaintance
8.	Language Skills - 3 : Grammar	Language skills
9.	Learning Skills - 1 : Domain Analysis of an activity	Understanding learning domains
10.	Learning Skills - 2 : FIPN Analysis of Learning	Learning analysis
11.	Learning Skills - 3 : Reading and Notes taking	Effective reading and notes taking
12.	Learning Skills - 4 : Listening and Notes taking	Effective listening and notes taking
13.	Learning Skills - 5 : Studying Skills	Effective self-studying
14.	Technical Skills - 1 : Calculating Skills	Efficient use of calculator
15.	Technical Skills - 1 : Text-graphic Conversion	Graphic and language skills
16.	Aesthetic Skills	Attitude of aesthetic presentation
17.	Behavioral Skills	Behavior, mannerism and etiquettes
18.	Creativity Skills	Attitude of creativity and innovation
19.	Self-motivated Activities	Self-motivation Skills

C. INDUSTRIAL EXPOSURE:

(Included in *Workbook on Generic Skills*)

SN	Mode of Exposure	Topic
1.	Self-motivated Activities	Industrial survey, information collection, Biographies of industrialists, etc.
2.	Recitation Exercises	Articles on industrial scenario and issues
3.	Domain Analysis	Analysis of field / industrial activities

ASSESSMENT CRITERIA FOR TERM WORK AND PRACTICAL EXAMINATION

a) Term work :

i) Continuous Assessment of Practical Assignments:

Every practical assignment shall be assessed for 25 marks as per criteria given in *Workbook on Generic Skills*.

ii) Progressive Skill Test :

One mid-term *Progressive Skill Test* of 25 marks shall be conducted as per criteria given in *Workbook on Generic Skills*

Final marks of term work shall be awarded as per *Assessment Pro-forma VI*

b) Term-end Practical Examination :

Term-end Practical Examination shall be conducted by internal examiner (course teacher) and external examiner (course teacher of different class from the Institute) as per the following criteria :

Skills >	Concentration Skills	Language Skills	Learning Skills	Technical Skills	Aesthetic, behavioral and creativity skills	Total	Marks converted out of ...
Marks >	20	20	20	20	20	100	50

INSTRUCTIONAL STRATEGIES:

Instructional Methods:

1. Lectures cum Demonstrations
2. Classroom practices

Teaching and Learning resources:

1. Chalk board
2. LCD presentations
3. Audio presentations
4. Item Bank

REFERENCE MATERIAL :

a) Books / Journals / IS Codes

Sr. No.	Author	Title	Publisher
1.	K. Sudhesh	Development of Generic Skills	Nandu Printers & Pub, M'bai
2.	Kulkarni/Sharma	Independent Study Techniques	
3.	E.H.McGrath	Basic Managerial Skills for all	McGraw Hill Pub., New Delhi
4.	Sahukar & Bhalla	The book of Etiquette and Manners	Pustak Mahal, New Delhi
5.	Jeanne E.O.	Human Learning	Pearson Publishers, Mumbai
6.	Kenneth/Dubois	Learning to Learn	Pearson Publishers, Mumbai
7.	Fred Luthans	Organizational Behavior	McGraw-Hill Higher Edu.

b) Websites

- i) www.mindtools.com
- ii) www.samcerto.com
- iii) www.stress.org.uk
- iv) www.yogapoint.com

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COURSE ID: 12

Course Name : COMMUNICATION SKILLS
Course Code : CCE202
Course Abbreviation : ECMS

TEACHING AND EVALUATION SCHEME:

Pre-requisite Course(s) : < nil >

Teaching Scheme:

Scheme component	Hours / week	Credits
Theory	02	04
Practical	02	

Evaluation Scheme:

Mode of Evaluation	Progressive Assessment		Term End Examination			Total
	Theory	Practical	Theory Examination	Term Work	Practical Examination (Internal)	
Details of Evaluation	Average of two tests of 20 marks each to be converted out of 10 marks	i. 25 marks for each practical ii. One PST of 25 marks	Term End Theory Exam (02 hours)	Nil	Pro-forma II	
Marks	10	--	40	--	25	75

RATIONALE:

Communication being an integral part of every personal and professional human activity, communication skills plays a fundamental role in education as well as technology. As a unanimous feedback from the industry in general, technicians need to be specially strengthened in generic communication skills for their effectiveness in profession and career. Considering the age group and socio-economical background of the students of the Institute, this course has been designed with a skill-oriented content with some necessary theoretical foundation. For mastery and perfection in these skills, consistent practice and integrated application is necessary in all subjects of the Programme.

OBJECTIVES:

7. Identify his/her communication barriers
8. Write letters, reports, resume in correct language
9. Converse and convince by speaking, deliver prepared and extempore speech
10. Make effective use of body language and graphic communication
11. Prepare and present simple media aided presentations

CONTENT:

A) THEORY :

Sr. No.	Topics / Sub-topics	Lectures (Hours)	Theory Evaluation (Marks)
1	Fundamentals of Communication 1.1 Definition of communication by Newman and Peter Little. Importance communication 1.2 Model of communication: Sender-Message-Channel-Receiver-Feedback cycle. Encoding and decoding 1.3 Principles of effective communication 1.4 Types of communication 1.5 Barriers in communication	08	12
2	Oral Communication 2.1 Principles and characteristics of oral communication. 2.2 Tone, pronunciation and accents. Grammar. 2.3 Spoken English : Dialogue, conversation, prepared and extempore speech, discussion, debate, feedback	06	06
3	Written Communication 3.1 Principles and characteristics of written communication 3.2 Grammar : (Tense, Articles, Prepositions, Change the Voice, Direct and Indirect Speech) 3.3 Writing reports, letters, small essays, resume, paper, seminar, notes	06	06
4	Non-verbal communication 4.1 Principles and characteristics of non-verbal Communication. 4.2 Body Language: visual, tactile, auditory, cultural. Silence. 4.3 Graphic Communication : Visual illustration, technical graphic communication.	04	06
5	Media Aided Presentation 5.1 Media aids for presentation : strengths and precautions 5.2 Planning, preparing and making a presentation 5.3 Use of presentation media : OHP, computer, MS PowerPoint, LCD, board, charts	04	06
6	Interview Techniques 6.1 Preparing for an interview 6.2 Taking a mock interview and facing an interview	04	04
	Total	32	40
Semester end exam question paper should be such that total marks of questions on each topic is one and half times the marks allotted above but the candidates are able to attempt questions of			

Sr. No.	Topics / Sub-topics	Lectures (Hours)	Theory Evaluation (Marks)
the above allotted marks only.			

Specification table for setting question paper for semester end theory examination :

Topic No.	Name of topic	Distribution of marks			Total marks
		Knowledge	Comprehension	Application	
1	Fundamentals of Communication	02	06	04	12
2	Oral Communication	02	02	02	06
3	Written Communication	02	02	02	06
4	Non-verbal Communication	02	02	02	06
5	Media aided presentation	02	02	02	06
6	Interview Techniques	00	02	02	04
Total >>		10	16	14	40

Semester end exam question paper should be such that total marks of questions on each topic is one and half times the marks allotted above but the candidates are able to attempt questions of the above allotted marks only.

B) TERM WORK

Practical Exercises and related skills to be developed:

The following practical exercises shall be conducted as Term Work as detailed in the *Workbook on Communication Skills* developed by the Institute in practical sessions of batches of about 22 students :

Sr No.	Title of Practical Exercise	Skills / Competencies to be developed
1.	Characteristics of Communication Process	Analysis of communication process
2.	My Communication Barriers	Self analysis
3.	Verbal Communication : Vocabulary	Improvement in vocabulary
4.	Grammar and Pronunciation Tips	Grammar and pronunciation
5.	Oral Communication : Prepared Speech	Preparing and delivery
6.	Oral Communication : Extempore Speech	Creative thinking and speaking
7.	Oral Communication : Conversation	Listening, thinking and speaking
8.	Oral Communication : Group Discussion	Listening, thinking and convincing
9.	Oral Communication : Group Debate	Listening, thinking and convincing
10.	Written Communication : Drafting Skills	Drafting
11.	Written Communication : Writing formal and Informal Letters	Drafting
12.	Written Communication : Writing Reports	Drafting with comprehension
13.	Written Communication : Writing Scripts	Drafting
14.	Non-verbal Communication : Graphic Communication	Graphic skills
15.	Non-verbal Communication : Body Language	Body language
16.	Using Presentation Aids	Using presentation aids

17.	Interview Techniques	Facing interview
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C) INDUSTRIAL EXPOSURE :
(Included in *Workbook on Communication Skills*)

SN	Mode of Exposure	Topic
1.	Oral and Written Communication Exercises	Industrial situations
2.	Recitation Exercises	Articles on industrial scenario and issues
3.	Interview Techniques Exercises	Industrial situations

ASSESSMENT CRITERIA FOR TERM WORK AND PRACTICAL EXAMINATION

c) Assessment Criteria for Term work :

i) Continuous Assessment of Practical Assignments:

Every practical assignment shall be assessed for 25 marks as per criteria given in *Workbook on Communication Skills*.

ii) Progressive Skill Test:

One mid-term *Progressive Skill Test* of 25 marks shall be conducted as per criteria given in *Workbook on Communication Skills*

d) Assessment Criteria for Term-end Practical Examination :

Term-end Practical Examination shall be conducted by internal examiner (course teacher) and external examiner (course teacher of different class from the Institute) as per the following criteria

Item >	Oral	Speech	Body Language	Language Grammar	Letter Writing	Total	Marks out of
Marks >	20	20	20	20	20	100	25

Final marks for term work and practical examination shall be awarded as per *Assessment Pro-forma-II*.

INSTRUCTIONAL STRATEGIES:

Instructional Methods:

1. Lectures cum Demonstrations
2. Classroom practices

Teaching and Learning resources:

1. Chalk board
2. LCD presentations
3. Audio presentations
4. Item Bank

REFERENCE MATERIAL :

a) Books / Journals / IS Codes

Sr. No.	Author	Title	Publisher
1.	K. Sudhesh	Development of Generic Skills	Nandu Printers & Pub, M'bai
2.	B.V.Pathak	Communication Skills	Nirali Prakashan
3.	Burgoon Michael	Human Communication	SAGE Publications Inc.
4.	Geofrey Leech and Jansvartvik	A communicative Grammar of English	Pearson Education ESL
5.	Elizabeth Hiemey	101 ways to better communication	Pustak Mahal
6.	Thomas Huckin and Leslie	Technical Writing and Professional Communication	McGraww Hill College Division

b) Websites

- i) www.clrp.cornell.edu/workshops/pdf/communication_skills-web.pdf
- ii) http://depssa.ignou.ac.in/wiki/images/c/ca/Communication_skills_in_English.pdf www
- iii) <http://www.cgg.gov.in/Handbook%20on%20Communication%20Skills.pdf>
- iv) <http://www.stf-media.com/31-0-Presentations.html>

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COURSE ID: 13

Course Name : PROFESSIONAL PRACTICES
Course Code : CCE203
Course Abbreviation : EPRP

TEACHING AND EVALUATION SCHEME:

Pre-requisite Course(s) : < nil >

Teaching Scheme:

Scheme component	Hours / week	Credits
Theory	01	03
Practical	02	

Evaluation Scheme:

Mode of Evaluation	Progressive Assessment		Term End Examination			Total
	Theory	Practical	Theory Examination	Term Work	Oral Examination (Internal)	
Details of Evaluation	NIL	NIL	Term End Theory Exam (03 hours)	As per pro-forma VI	As per pro-forma V	
Marks	NIL	NIL	NIL	25	50	75

RATIONALE:

The course *Professional Skills* is in continuation of the courses *Generic Skills* and *Communication Skills* studied in semester I and II respectively. In order to be a successful technician in industry, a diploma holder is required to acquire certain professional skills. These skills shall be studied in this course. An overview and awareness about the world of industry has been provided in Chapter 1. Professional skills like leadership skills, team building, stress and conflict management, time management have been dealt with. Aptitude tests have been introduced. A study of major technological projects in the respective programme discipline has been included in the syllabus. Term work assignments of the course provide the student on-field activities as well as self-learning activities providing professional exposure in order to help develop professional skills.

OBJECTIVES:

12. Develop awareness about industrial scenario of world and India
13. Develop professional skills like leadership, stress and conflict management, team building skills
14. Develop awareness about major industrial projects and biographies of great industrial personalities

CONTENT:

C. THEORY :

Sr. No.	Topics / Sub-topics	Lectures (Hours)
1	<p>Industrial Development of India</p> <p>1.3 Introduction to industrial revolution in the world 1.4 Brief history of industry in India 1.5 Broad categories of industries : Manufacturing industry, service industry 1.6 Present industrial scenario of India : Small scale, medium scale and major industries in the programme discipline 1.7 Major issues related to industrialization</p>	04
2	<p>Profession and Professional Skills</p> <p>2.1 Difference in profession, occupation, business 2.2 Leadership : definition, styles and skills 2.3 Team Building : Types of teams. Characteristics of good team and effective teamwork 2.4 Conflict management : Definition and causes of conflict. Methods of resolution - negotiating, compromising, withdrawal, forcing, engagement 2.5 Self SWOT analysis as a professional technician 2.6 Aptitude test</p>	06
3	<p>Industrial Personalities and Major Projects</p> <p>a. Pioneers of Industrial development of India : Brief biography of Sir M. Visvesarrrya and JRD Tata b. Biography and contribution of two great industrial personalities from programme discipline c. Study of 5 major technological projects in the programme discipline</p>	06
	Total	16

D. TERM WORK

Practical Exercises and related skills to be developed:

The term work shall consist of a journal containing write ups by students on the following assignments conducted in practical sessions of batches of about 22 students :

Sr No.	Title of Practical Exercise	Skills / Competencies to be developed
1.	Information Search through internet on Industrial Scenario of India	Information search and interpretation skills
2.	Information Search through actual visit to MIDCs on classification of industries	Information search and interpretation skills
3.	Biography and contribution of Sir M. Visverayya and J.R.D.Tata	Information search and presentation skills
4.	Biography and contribution of two eminent industrialists from programme discipline	Information search and presentation skills
5.	Individual SWOT analysis as a professional technician	Self-analysis skills
6.	Leadership	Leadership skills
7.	Stress and Conflict Management	Stress and conflict management skills
8.	Aptitude test	Self-testing skills
9.	Case study of a major technological project in the programme discipline	Case study skills

C. INDUSTRIAL EXPOSURE :

(Included in the contents of *Theory* and *Term work*)

SN	Mode of Exposure	Topic
1.	Theory inputs and practical survey	TW Exercise No. 1 and 2
2.	Study of biographies of industrialists	TW Exercise No. 3 and 4
3.	Case study of major industrial project	TW Exercise No. 9

ASSESSMENT CRITERIA FOR TERM WORK AND PRACTICAL EXAMINATION

e) Assessment Criteria for Term work :

i) Continuous Assessment of Practical Assignments:

Every practical assignment shall be assessed for 25 marks

ii) Progressive Skill Test:

One mid-term *Progressive Skill Test* of 25 marks shall be conducted.

Final marks of term work shall be awarded as per *Assessment Pro-forma V*

f) Term End Oral Examination :

Term-end Oral Examination shall be conducted by internal examiner (course teacher) and external examiner (course teacher of different class from the Institute).

INSTRUCTIONAL STRATEGIES:

Instructional Methods:

1. Lectures cum Demonstrations
2. Classroom practices

Teaching and Learning resources:

1. Chalk board
2. LCD presentations
3. Audio presentations

REFERENCE MATERIAL :

a) Books / Journals / IS Codes

Sr. No.	Author	Title	Publisher
1.	EH McGrath, SJ	Basic Managerial Skills for all	McGraw Hill
2.	Prakash Iyer	The Secret of Leadership : Stories to Awaken, Inspire and Unleash the Leader Within	

b) Websites

- i) en.wikipedia.org/wiki/Leadership

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COURSE ID: 14

Course Name : ENVIRONMENTAL STUDIES
Course Code : CCE204
Course Abbreviation : EENS

TEACHING AND EVALUATION SCHEME:

Pre-requisite Course(s) : < nil >

Teaching Scheme:

Scheme component	Hours / week	Credits
Theory	02	02
Practical	--	

Evaluation Scheme:

Mode of Evaluation	Progressive Assessment		Term End Examination			Total
	Theory	Practical	Theory Examination	Term Work	Oral Examination	
Details of Evaluation	Average of two tests of 20 marks each to be converted out of 10 marks	--	Term End Theory Exam (1½ hours)	--	--	
Marks	10	--	40	--	--	50

RATIONALE:

Environment essentially comprises of our living ambience, which gives us the zest and verve in all our activities. The turn of the twentieth century saw the gradual onset of its degradation by our callous deeds without any concern for the well being of our surrounding we are today facing a grave environmental crisis. The unceasing industrial growth and economic development of the last 300 years or so have resulted in huge ecological problems such as overexploitation of natural resources, degraded land, disappearing forests, endangered species, dangerous toxins, global warming etc. It is therefore necessary to study environmental issues to realize how human activities affect the environment and what could be possible remedies or precautions which need to be taken to protect the environment.

The curriculum covers the aspects about environment such as Environment and Ecology, Environmental impacts on human activities, Water resources and water quality, Mineral resources and mining, Forests, etc.

OBJECTIVES :

1. To appreciate importance of environment

2. To know key issues about environment
3. To know the reasons for environment degradation
4. To know methods and measures for preservation of environment

CONTENT:

Sr. No.	Topics / Sub-topics	Lectures (Hours)	Theory Evaluation (Marks)
1	<p>Nature of Environmental Studies</p> <p>1.1 Definition, Scope and Importance of the environmental studies</p> <p>1.2 Need for awareness about environmental issues</p>	02	04
2	<p>Natural Resources and Associated Problems</p> <p>2.1 Renewable and Non-renewable resources : Definition. Associated problems</p> <p>2.2 Forest Resources : General description of forest resources. Functions and benefits of forest resources. Effects on environment due to deforestation, timber extraction, building of dams, waterways.</p> <p>2.3 Water Resources : Hydrosphere and different sources of water. Use and overexploitation of surface and ground water. Effect of floods, draught, dams on water resources and community</p> <p>2.4 Mineral Resources : Categories of mineral resources. Basics of mining activities. Mine safety. Effect of mining on environment</p> <p>2.5 Food Resources : Food for all. Effects of modern Agriculture. World food problem.</p>	06	06
3	<p>Ecosystems</p> <p>3.1 Concept of Ecosystem</p> <p>3.2 Structure and functions of ecosystem</p> <p>3.3 Energy flow in ecosystem</p> <p>3.4 Major ecosystems in the world</p>	04	06
4	<p>Biodiversity and Its Conservation</p> <p>4.1 Definition of biodiversity</p> <p>4.2 Levels of biodiversity</p> <p>4.3 Value of biodiversity</p> <p>4.4 Threats to biodiversity</p> <p>4.5 Conservation of biodiversity</p>	04	06
5	<p>Environmental Pollution</p> <p>5.1 Air pollution: Definition, Classification, sources, effects, prevention</p>	06	06

Sr. No.	Topics / Sub-topics	Lectures (Hours)	Theory Evaluation (Marks)
	5.2 Water Pollution: Definition, Classification, sources, effects, prevention 5.3 Soil Pollution: Definition, sources, effects, prevention 5.4 Noise Pollution: Definition, sources, effects, prevention		
6	Social Issues on Environment 6.1 Concept of development, sustainable development 6.2 Water conservation, Watershed management, Rain water harvesting: Definition, Methods and Benefits 6.3 Climate Change, Global warming, Acid rain, Ozone layer depletion, Nuclear accidents and Holocaust: Basic concepts and their effect on climate 6.4 Concept of Carbon Credits and its advantages	06	06
7	Environmental Protection 7.1 Environmental Protection Act 7.2 Air (Prevention and Control of Pollution) Act 7.3 Water (Prevention and Control of Pollution) Act 7.4 Wildlife Protection Act 7.5 Forest Conservation Act 7.6 Population Growth: Aspects, importance and effect on environment 7.7 Human Health and Human Rights	04	06
	Total	32	40
Semester end exam question paper should be such that total marks of questions on each topic is one and half times the marks allotted above but the candidates are able to attempt questions of the above allotted marks only.			

Specification table for setting question paper for semester end theory examination :

Topic No.	Name of topic	Distribution of marks			Total marks
		Knowledge	Comprehension	Application	
1	Nature of Environmental Studies	02	02	--	04
2	Natural Resources and Associated Problems	02	02	02	06
3	Ecosystems	02	02	02	06
4	Biodiversity and Its Conservation	02	02	02	06
5	Environmental Pollution	02	02	02	06
6	Social Issues on Environment	02	--	04	06
7	Environmental Protection	02	--	02	06

	Total >>	14	10	14	40
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Semester end exam question paper should be such that total marks of questions on each topic is one and half times the marks allotted above but the candidates are able to attempt questions of the above allotted marks only.

B. INDUSTRIAL EXPOSURE :

(Included in *Workbook on Communication Skills*)

SN	Mode of Exposure	Topic
1.		
2.		
3.		

INSTRUCTIONAL STRATEGIES:

Instructional Methods:

1. Lectures cum Demonstrations
2. Classroom practices

Teaching and Learning resources:

1. Chalk board
2. LCD presentations
3. Audio presentations
4. Item Bank

REFERENCE MATERIAL :

a) Books / Journals / IS Codes

Sr. No.	Author	Title	Publisher
1.	Anindita Basak	Environmental Studies	Pearson Education
2.	R. Rajgopalan	Environmental Studies from Crises to Cure	Oxford University Press
3.	Dr. R. J. Ranjit Daniels, Dr. Jagdish Krishnaswamy	Environmental Studies	Wiley India

b) Websites

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