B.TECH. SEMESTER II (EC/CE/IT)
SUBJECT: ENGLISH

Teaching Scheme (Hours/Week)				Credits	Examination Scheme				
Lect	Tut	Prac	Total		Ext	Sess.	TW	Pract.	Total
2	0	2	4	3	40	-	50*	-	90

Reference Code HSMC201

*TW Marks includes Viva based on TW

DETAILED SYLLABUS

[1] VOCABULARY BUILDING

The concept of Word Formation, Root words from foreign languages and their use in English, Acquaintance with prefixes and suffixes from foreign languages in English to form derivatives, Synonyms, antonyms, and standard abbreviations.

[2] BASIC WRITING SKILLS

Sentence Structures, Use of phrases and clauses in sentences, Importance of proper punctuation, Creating coherence, Organizing principles of paragraphs in documents, Techniques for writing precisely

[3] IDENTIFYING COMMON ERRORS IN WRITING

Subject-verb agreement, Noun-pronoun agreement, Misplaced modifiers, Articles, Prepositions, Redundancies, Clichés

[4] NATURE AND STYLE OF SENSIBLE WRITING

Describing, Defining, Classifying, Providing examples or evidence, Writing introduction and conclusion

[5] WRITING PRACTICES

Comprehension, Précis Writing, Essay Writing

[6] ORAL COMMUNICATION

(This unit involves interactive practice sessions in Language Lab) Listening Comprehension, Pronunciation, Intonation, Stress and Rhythm, Common, Everyday Situations: Conversations and Dialogues, Communication at Workplace, Interviews, Formal Presentations

TEXT / REFERENCE BOOKS

1) Practical English Usage. Michael Swan. OUP. 1995.
2) Remedial English Grammar. F.T. Wood. Macmillan.2007
3) On Writing Well. William Zinsser. Harper Resource Book. 2001
4) Study Writing. Liz Hamp-Lyons and Ben Heasly. Cambridge University Press. 2006.
5) Communication Skills. Sanjay Kumar and PushpLata. Oxford University Press. 2011.
6) Exercises in Spoken English. Parts. I-III. CIEFL, Hyderabad. Oxford University Press

B. TECH. SEMESTER – II (EC/CE/IT)
SUBJECT: ENVIRONMENTAL STUDIES

Teaching Scheme (Hours/Week)				Credits	Examination Scheme				
					Ext	Sess.	TW	Pract.	Total
Lect	Tut	Prac	Total						
2	0	0	2	0	40	--	--	--	40

Reference Code MC-II

DETAILED SYLLABUS

[1] THE MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

Definition, scope and importance & Need for public awareness

[2] NATURAL RESOURCES

Renewable and non-renewable resource: Natural resources and associated problems, Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams, and their effects on forests and tribal people ,Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefit and problems, Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies, Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies, Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies, Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification, Role of an individual in conservation of natural resources. Equitable use of resources of sustainable lifestyles

[3] ECOSYSTEMS

Concept of an ecosystem, Structure and function of an ecosystem, producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids, Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem and Aquatic ecosystem (ponds, streams, lakes, rivers, oceans, estuaries)

[4] BIODIVERSITY AND ITS CONSERVATION

Introduction definition: Genetic, species and ecosystem diversity, Bio-geographical classification of India, Value of biodiversity: Consumptive use, productive use, social, ethical, aesthetic and option values. Biodiversity at global, national and local levels, India as a mega-diversity nation, Hot-spots of biodiversity, Threats to biodiversity, habitat loss, poaching of wildlife, man-wildlife conflicts, Endangered and endemic species of India, Conservation of biodiversity: In-situ and ex-situ conservation of biodiversity

[5] ENVIRONMENTAL POLLUTION

Definition, Causes, effects and control measures of: Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards, Solid waste management, causes, effects and control measures of urban and industrial wastes, Role of an

individual in prevention of pollution, Pollution case studies, Disaster management: floods, earthquake, cyclone and landslides

[6] SOCIAL ISSUES AND THE ENVIRONMENT

From unsustainable to sustainable development, Urban problems related to energy, Water conservation, rain water harvesting, watershed management, Resettlement and rehabilitation of people: its problems and concerns. Case studies, Environmental ethics: Issues and possible solutions, Climate change: Global warming, acid rain, ozone layer depletion, nuclear accidentsand holocaust, Case studies, Wasteland reclamation, Consumerism and waste products, Environment Protection Act: Air (Prevention and Control of Pollution) Act, Water (Prevention &Control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation, Public awareness

[7] HUMAN POPULATION AND THE ENVIRONMENT

Population growth, variation among nations, population explosion, Family Welfare Program, environment and human health, human rights, Value education, HIV/AIDS, Women and Child Welfare, Role of Information Technology in Environmental and human health, Case studies

[8] FIELD WORK

Visit to a local area to document environmental assets (river/forest/grassland/hill/mountain), Visit to a local polluted site - Urban/Rural/Industrial/Agricultural, Study of common plants, insects, birds, Study of simple ecosystems – pond, river, hill, slopes etc.

TEXT / REFERENCE BOOKS

1) Erach Bharucha Textbook of Environmental Studies; Second Edition, Universities Press:Hyderabad, 2013.
2) Rajagopalan, R. Environmental Studies; Oxford University Press: India, 2015.
3) Varandani, N. S. Basics of Environmental studies; Lambert Academic Publishing: Germany,2013.
4) Rao, C. S. Environmental Pollution Control Engineering; Wiley publishers: New Delhi, 2006.
5) Clark, R. S. Marine Pollution; Clanderson Press Oxford: Bath, 2001.
6) Cunningham, W.P.; Cooper; Gorhani, T. H. E.; Hepworth, M.T., Environmental Encyclopedia;Jaico Publ. House: Mumbai, 2001.
7) De, A. K. Environmental Chemistry; Wiley Eastern: New Delhi, 2006.