BE 2018 Scheme Fifth Semester Syllabus EC / TC

61	B. E. (EC / TC)
Choice Based Credit System	(CBCS) and Outcome Based Education (OBE)
	SEMESTER – V

TECHNOLOGICAL INNOVATION MANAGEMENT AND ENTREPRENEURSHIP

Course Code	18ES51	CIE Marks	40
Number of Lecture Hours/Week	03	SEE Marks	60
Total Number of Lecture Hours	40 (08 Hours / Module)	Exam Hours	03

Course Learning Objectives: This course will enable students to:

- Understand basic skills of Management
 Understand the need for Entrepreneurs and their skills
 Identify the Management functions and Social regions

 Identify the Management functions and Social responsibilities Understand the Ideation Process, creation of Business Model, Feasibility Study and sources of 	of funding
Module-1	RBT Level
Management: Nature and Functions of Management – Importance, Definition, Management Functions, Levels of Management, Roles of Manager, Managerial Skills, Management & Administration, Management as a Science, Art & Profession (Selected topics of Chapter 1, Text 1). Planning: Planning-Nature, Importance, Types, Steps and Limitations of Planning; Decision Making – Meaning, Types and Steps in Decision Making(Selected topics from Chapters 4 & 5, Text 1).	L1,L2
Module-2	
Organizing and Staffing: Organization-Meaning, Characteristics, Process of Organizing, Principles of Organizing, Span of Management (meaning and importance only), Departmentalisation, Committees-Meaning, Types of Committees; Centralization Vs Decentralization of Authority and Responsibility; Staffing-Need and Importance, Recruitment and Selection Process (Selected topics from Chapters 7, 8 & 11,Text 1). Directing and Controlling: Meaning and Requirements of Effective Direction, Giving Orders; Motivation-Nature of Motivation, Motivation Theories (Maslow's Need-Hierarchy Theory and Herzberg's Two Factor Theory); Communication - Meaning, Importance and Purposes of Communication; Leadership-Meaning, Characteristics, Behavioural Approach of Leadership; Coordination-Meaning, Types, Techniques of Coordination; Controlling - Meaning, Need for Control System, Benefits of Control, Essentials of Effective Control System, Steps in Control Process (Selected topics from Chapters 15 to 18 and 9, Text 1).	L1,L2
Module-3	
Social Responsibilities of Business: Meaning of Social Responsibility, Social Responsibilities of Business towards Different Groups, Social Audit, Business Ethics and Corporate Governance (Selected topics from Chapter 3, Text 1). Entrepreneurship: Definition of Entrepreneur, Importance of Entrepreneurship, concepts of Entrepreneurship, Characteristics of successful Entrepreneur, Classification of Entrepreneurs, Myths of Entrepreneurship, Entrepreneurial Development models, Entrepreneurial development cycle, Problems faced by Entrepreneurs and capacity building for Entrepreneurship (Selected topics from Chapter 2, Text 2).	L1,L2
Module-4	
Family Business: Role and Importance of Family Business, Contributions of Family Business in India, Stages of Development of a Family Business, Characteristics of a Family-owned Business in India, Various types of family businesses (Selected topics from Chapter 4,(Page 71-75) Text 2). Idea Generation and Feasibility Analysis- Idea Generation; Creativity and Innovation; Identification of Business Opportunities; Market Entry Strategies; Marketing Feasibility; Financial Feasibilities; Political Feasibilities; Economic Feasibility; Social and Legal Feasibilities; Technical Feasibilities; Managerial Feasibility, Location and Other Utilities Feasibilities. (Selected topics from Chapter 6(Page No. 111-117) & Chapter 7(Page No. 140-142), Text 2)	L1,L2
Module-5	

Business model – Meaning, designing, analyzing and improvising; Business Plan – Meaning, Scope and Need; Financial, Marketing, Human Resource and Production/Service Plan; Business plan Formats; Project report preparation and presentation; Why some Business Plan fails? (Selected topics from Chapter 8 (Page No 159-164, Text 2)

Financing and How to start a Business? Financial opportunity identification; Banking sources; Nonbanking Institutions and Agencies; Venture Capital – Meaning and Role in Entrepreneurship; Government Schemes for funding business; Pre launch, Launch and Post launch requirements; Procedure for getting License and Registration; Challenges and Difficulties in Starting an Enterprise(Selected topics from Chapter 7(Page No 147-149), Chapter 5(Page No 93-99) & Chapter 8(Page No. 166-172) Text 2)

L1,L2,L

Project Design and Network Analysis: Introduction, Importance of Network Analysis, Origin of PERT and CPM, Network, Network Techniques, Need for Network Techniques, Steps in PERT, CPM, Advantages, Limitations and Differences. (Selected topics from Chapters 20, Text 3).

Course Outcomes: After studying this course, students will be able to:

- Understand the fundamental concepts of Management and Entrepreneurship and opportunities in order to setup a business
- Describe the functions of Managers, Entrepreneurs and their social responsibilities
- Understand the components in developing a business plan
- Awareness about various sources of funding and institutions supporting entrepreneurs

Text Books:

- Principles of Management P.C Tripathi, P.N Reddy, McGraw Hill Education, 6th Edition, 2017. ISBN-13:978-93-5260-535-4.
- Entrepreneurship Development Small Business Enterprises- Poornima M Charantimath, Pearson Education 2008, ISBN 978-81-7758-260-4.
- Dynamics of Entrepreneurial Development and Management by Vasant Desai. HPH 2007, ISBN: 978-81-8488-801-2.
- Robert D. Hisrich, Mathew J. Manimala, Michael P Peters and Dean A. Shepherd, "Entrepreneurship", 8th Edition, Tata Mc-graw Hill Publishing Co.ltd.-new Delhi, 2012

Reference Book:

 Essentials of Management: An International, Innovation and Leadership perspective by Harold Koontz, Heinz Weihrich McGraw Hill Education, 10th Edition 2016. ISBN- 978-93-392-2286-4.

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B. E. Common to all Branches Choice Based Credit System (CBCS) and Outcome Based Education (OBE) SEMESTER – V

ENVIRONMENTAL STUDIES

Course Code	18CIV59	CIE Marks	40
Teaching Hours / Week (L:T:P)	(1:0:0)	SEE Marks	60
Credits	01	Exam Hours	02

Module - 1

Ecosystems (Structure and Function): Forest, Desert, Wetlands, Riverine, Oceanic and Lake.

Biodiversity: Types, Value; Hot-spots; Threats and Conservation of biodiversity, Forest Wealth, and Deforestation.

Module - 2

Advances in Energy Systems (Merits, Demerits, Global Status and Applications): Hydrogen, Solar, OTEC, Tidal and Wind.

Natural Resource Management (Concept and case-studies): Disaster Management, Sustainable Mining, Cloud Seeding, and Carbon Trading.

Module - 3

Environmental Pollution (Sources, Impacts, Corrective and Preventive measures, Relevant Environmental Acts, Case-studies): Surface and Ground Water Pollution; Noise pollution; Soil Pollution and Air Pollution. Waste Management & Public Health Aspects: Bio-medical Wastes; Solid waste; Hazardous wastes; E-wastes; Industrial and Municipal Sludge.

Module - 4

Global Environmental Concerns(Concept, policies and case-studies):Ground water depletion/recharging, Climate Change; Acid Rain; Ozone Depletion; Radon and Fluoride problem in drinking water; Resettlement and rehabilitation of people, Environmental Toxicology.

Module - 5

Latest Developments in Environmental Pollution Mitigation Tools (Concept and Applications): G.I.S. & Remote Sensing, Environment Impact Assessment, Environmental Management Systems, ISO14001; Environmental Stewardship- NGOs.

Field work: Visit to an Environmental Engineering Laboratory or Green Building or Water Treatment Plant or Waste water treatment Plant; ought to be Followed by understanding of process and its brief documentation.

Course outcomes: At the end of the course, students will be able to:

- Understand the principles of ecology and environmental issues that apply to air, land, and water issues
 on a global scale,
- Develop critical thinking and/or observation skills, and apply them to the question related to the environment.
- Demonstrate ecology knowledge of a complex relationship between biotic and a biotic components.
- Apply their ecological knowledge to illustrate and graph a problem and describe the realities that
 managers face when dealing with complex issues.

Question paper pattern:

- The Question paper will have 100 objective questions.
- Each question will be for 01 marks
- Student will have to answer all the questions in an OMR Sheet.
- The Duration of Exam will be 2 hours.

SI. No.	Title of the Book	Name of the Author/s	Name of the Publisher	Edition and Year
		Textbook/s	Table 1 To the Table 1	1
1	Environmental Studies	Benny Joseph	Tata McGraw - Hill.	2 nd Edition, 2012
2	Environmental Studies	S M Prakash	Pristine Publishing House, Mangalore	3 rd Edition: 2018
3	Environmental Studies – From Crisis to Cure	R Rajagopalan	Oxford Publisher	2005
		Reference Bool	cs	
1	Principals of	Raman Sivakumar	Cengage learning,	2 nd Edition, 2005

***************************************	Environmental Science and		Singapur.	
2	Engineering Environmental Science – working with the Earth	G.Tyler Miller Jr.	Thomson Brooks /Cole,	11th Edition, 2006
3	Text Book of Environmental and Ecology	Pratiba Sing, AnoopSingh& PiyushMalaviya	Acme Learning Pvt. Ltd. New Delhi.	1 st Edition

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