

SEMESTER III

Environmental Economics – I Sem III

- Introductory micro-economic theory such as: supply and demand; price formulation; political means of control; environmental economic theories;
- Valuation methods; political means of control (administrative and incentive based) and their applicability on environmental problems;
- Natural resource economics; renewable and non-renewable resources resource management regimes;
- Ecological economics; the ecological system; technological pessimism vs technological optimism;
- International trade and the environment; Economic growth and the environment; and
- Case Studies

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Marketing Management Sem III

Introduction to Marketing-

- (a) The 4 Ps and 3Cs of Marketing
- (b) Marketing as an activity, function, and philosophy
- (c) Needs, wants and demands; transactions, transfers & exchanges
- (d) Orientation of a firm: Production concept; product concept; selling concept; and marketing concept.

New Trends in Marketing: E-Marketing, Internet Marketing, and Marketing using social networks

Societal Marketing/Relationship Marketing

Marketing Research; MIS; & Consumer Behaviour

The micro environment of business (management structure; marketing channels: markets in which a firm operates; competitors and stakeholders.

Macro Environment: political factors; economic factors; socio-cultural factors; technological factors (pest analysis)

Marketing Research:

Importance of Marketing Research

Types of Marketing Research:

Product research; sales research; consumer/customer research; promotion research.

Consumer Behaviour:

Basic stimulus response model

Influence on consumers decision-making process

High involvement and low involvement products

Influences on buying behaviour: cultural factors, social factors, personal factors and psychological factors (Maslow's Hierarchy)

Methods of sales forecasting

Industrial Buying Behaviour; Product & Brand Management; STP

Industrial buying behaviour

Decision making process

DMUs and its composition Factors influencing purchasing: economic environment; organizational factors; inter-personal characteristics; and individual buyer characteristics

Key differences between Consumer and Organizational Buying

Product and Brand Management

(a) Products: core, tangible and augmented products

Product mixed decisions: product line decisions; strategic filling, line modernization decisions

New product development process: idea generation, screening, concept development and testing, marketing strategy, product development, market testing, test marketing, and commercialization.
product life cycle: Introduction growth, marketing decline,

(b) Brand Management

Brand equity; branding decisions; brand extensions; brand portfolios

Segmentation, Targeting and Positioning (STP):

Segmentation variables for consumer markets:

Geographic, demographic, psychographic, behavioural

Segmentation variable for industrial markets: customer location, type of industry, size of the firm, purchase criteria, etc.

Targeting: undifferentiated marketing; single segment and multi segment structures; guidelines for selecting target markets

Positioning:

Identifying frame of reference; points of parity and points of difference; choosing category membership; product and brand differentiation for identifying of position

Pricing Decisions, Channel Decisions; Promotion Mix; Strategies; Integrated Marketing; Communications; Marketing Services; & Ethics in Marketing

Pricing Decisions

Pricing objectives; factors influencing pricing decisions

Types of pricing: Mark up/cost plus pricing; perceived value pricing; value pricing; geographic pricing; etc.

Responding to competitors

Action through price and non price variables.

Impact of the products: stage in the PLC on pricing decisions.

Channel Decisions:

Types of channels: Intensity of distribution, channel conflict and channel management.

Retailing importance, and types of retail formats, Indian Retail Scenario

Promotion mix

Advertising: Importance and scope

Sales promotion: objectives; consumer promotions

PR and publicity

Personal Selling: recruitment, selection, training, motivation and evaluation of sales reps.

Integrated Marketing Communication:

Definition of target audience; determining communication objectives; designing communication and selection of channels

Marketing Services:

Characteristics of services; ways of improving services, delivery, managing service maturity.

Ethics in Marketing

Advertising Standards Council of India code of ethics in advertising; promotion to children; unfair practices in marketing

Reference Books

1. **Kotler, Keller, Koshy, and Jha**, “Marketing Management: A South Asian Perspective” 12e, Pearson/Prentice Hall
2. **Etzel, Stanton, Walker & Pandit**, “Marketing Concepts & Cases”, 13e, Tata McGraw Hill
3. **Russel S. Winer**, “Marketing Management”, 3e, Pearson Education
4. **Kurtz Boone**, “Principles of Marketing”, Thomson
5. **S H H Kazmi**, “Marketing management”, Excel
6. **Kerin Hartley**, “Marketing Management” ,Tata McGraw Hill
7. **Ramaswamy & Namakumari**, “Marketing Management”, Macmillan India
8. **Roger Kerin/Robert A**, “Peterson Strategic Marketing Problems”, Prentice Hall
9. **Roger A. Kerin, Steven W. Harley**, “Marketing” ,Tata McGraw Hill
10. “Marketing Planning and Strategy”, Thomson
11. “Kellogg on Integrated market”, Wiley India
12. **Philip Kotler**, “Marketing Management”, Pearson Education
13. **William Stanton**, “Fundamentals of Marketing”, Tata McGraw Hill
14. **Rustom Davar**, “Modern Marketing Management” ,Universal Books
15. **Kotler, Keller, Kozhy, Jha**, “Marketing Management- South Asian Perspective”, Pearson Education
16. **V.S. Ramaswami and S Namakumari**, “Marketing: Planning, Implementation and Control”,

Macmillan India

17. **Theodore Levitt** , “Marketing Management”

18. **Rajan Saxena**, “Marketing Management”, Tata McGraw Hill

Research Methods in Business Sem III

Fundamentals of Research: - Meaning, Objectives and Significance.

Types of Research: - Basic research, Applied, Descriptive, historical, Exploratory, Experimental, Ex-post-factor and Case study approach.

Approaches to Research: -

a. Quantitative approach: -

- i Inferential
- ii Experimental
- iii Simulation

b. Qualitative approach: -

- i Ethnographic
- ii Phenomenological
- iii Field Research

Importance of research in management decisions: -

Various areas of research in business:

- a) Marketing Research
- b) Government policies and economic systems
- c) Social relationship
- d) Planning and operational problems of research in business

2 Research process: -

Selecting the topic, defining the research problem, objectives of research, literature survey, sample design, data collection, execution of project, analysis of data and hypothesis testing, generalization and interpretation and preparation of research report.

Features of good research

Research design – Meaning, need, features of good research design, types of research design –

- a) For exploratory research
- b) For descriptive research
- b) For causal research studies

3 Hypothesis: -

Meaning, importance and types. Formulation of hypothesis and testing of hypothesis.

Chi-square test, Correlation Co-efficient, Regression analysis.

Sampling: -

Meaning, Sample and sampling, essentials of good sample. Sample size, methods of sampling: -

- a) Probability sampling – cluster sampling, stratified sampling, multi stage sampling.
- b) Non-probability sampling: - Purposive sampling, Quota sampling, Convenience sampling.

4 Sources and Methods of data collection: -

Primary and Secondary data.

a) Primary sources: -

- i. Observation
- ii. Interview
- iii. Questionnaire
- iv. Interview schedules

b) Secondary sources

Data processing – Tabulation - Data analysis and Interpretation

Report writing – layout of research report

Reference Books

1. **C.R.Kothari**, “Research Methodology - Methods & Techniques” , New Age International Publishers
2. **Krishnaswamy O R**, “Research Methodology, Himalaya Publishing House
3. **Donald R Cooper & Pamela S Schindler**, “Business Research Methods”
4. **Nandagopal /Rajan**, “Research methods in Business”, Excel
5. **Uma Sekaram**, “Research Method for Business- A skill building approach”
6. **Donald H McBurney**, “Research Methods”, CRC Press
7. **Levin & Reuben**, “Statistics for Management” , Prentice Hall
8. **Dr S Shajahan**, “Research methods for Management”, Jaico

Global warming and climate change Sem III

UNIT-I

Role of ozone in environment-ozone layer-ozone depleting gases-Green House Effect

UNIT-II

Temperature profile of the atmosphere- Laps rates-Temperature inversion- effects of inversion on pollution dispersion.

UNIT-III

Causes of Climate change : Change of Temperature in the environment-melting of ice Pole-sea level rise-role of fossil fuels

UNIT-IV

Mitigation Measures- Cleaner production-alternative fuel measures

UNIT – V

Kyoto Protocol-Intergovernmental Panel on Climate change (IPCC)-

REFERENCES

Annon 1996. Climate change 1995: Adaptation and mitigation of climate change-Scientific Technical Analysis. Cambridge University Press, Cambridge. Annon. 2001. Inter governmental Panel on Climate change (IPCC) Climate change 2001.

Third Assessment Report (Volume I). Cambridge University Press, Cambridge Annon.2005. World Health Organization. Climate and Health. Fact sheet. July. Gosain, A.K. and Rao,S. 2003.

Climate change and India: Vulnerability Assessment and Adaptation. Eds. Shukla,P.R. Universities Press Pvt. Ltd.Hyderabad. pp462

Houghton,J. 2005. Global warming: The Complete Briefing. Cambridge: Cambridge University Press.Cambridge.

Saha,T.K. 2008. Ecology and Environmental Biology. Books and Allied (P) Ltd. Kokata. Pp610.

Lakshmipathy,M., S.R.Ramanan, R.Sathyanathan and J.S.Sudarsahn. 2009. Proceedings of the National Conference on Effect of climate change and sustainable resource management .SRM University, Kattankallathur. pp316.

Rao,M.N, Datar,M.Y. and Reddy,S. 1997. Vermicomposting-A Technological option for solid waste management .Ujjain, India.

Natural Resources and Management Sem III

UNIT-I

Introduction to Natural Resources – Classification of natural resources – List of natural resources – Values of natural resources - Demands on Natural Resources - Population, lifestyle and natural resources - Impact of poor natural resource management.

UNIT-II

Land resources – Land: Definition - Land use pattern in India. Waste Land: Types. Desertification: Definition - Causes and impacts.

UNIT-III

Water resources – Hydrological cycle – Surface water - Ground water:. Dams: Uses and impacts on environment. Marine resources: Biotic and abiotic resources.

UNIT-IV

Living Resources-Agriculture-types of cultivation-high yielding varieties –HYV chemicals fertilizers& their impacts-Microbes-useful& harmful bacteria in soil , water ,Air – fungi beneficial & harmful.

UNIT-V

Forest and Mineral Resources forest produce – food- fodder – fuel wood. Fiber – Timber – Minerals –Metal & non metal resources, non – conventional energy resources

References

1. Bali, S (2000) Land Resource Management in India. Souvenir of International Conference on Land Resource Management for food, employment and environmental security, 9 – 13 November, 2000. Organized by Soil Conservation Society of India. Pp. 29 – 48.
2. Department of Land Resources (2000) Ministry of Rural Development, Government of India, New Delhi.
3. Kovda, V. A. (1977) Arid land Irrigation and soil fertility: Problems of salinity, alkalinity, compaction. In Arid land Irrigation in Developing Countries: Environmentl Problems and Effects. Ed., by E. Barton Worthington. Oxford: Pergamon Press.
4. Agarwal, K.M., Sikdar, P.K., Deb., S.C (2005) A Text Book of Environment, Macmillan India Limited.

Financial Management Sem III

Introduction:

Meaning and Scope of Financial Management

Functions and Objectives of Financial Management

Changing Role of Finance Managers

Working Capital Management

Definition - GWC & NWC (Explain Core Assets & Non Core Assets)

Components of Working Capital

Factors Determining Working capital

Receivables Management

Meaning and Importance

Credit Policy Variables

Case Study on Credit Evaluation

Methods of Credit Evaluation

- Traditional and Numerical Credit Scoring

Monitoring the Debtors – Techniques

- DSO, Ageing Schedule, Collection Matrix

Cash Management

Motives Of Holding Cash

Strategies Of Cash Management

Cash Budget: Meaning and objectives

Budgeting of receipts and payments- Trading, non trading and capital

Preparation of monthly budget and finding out closing cash Balance

(Excl. Financial Statements to be made From the Working Capital Estimation)

Cost Of Capital & Capital Structures:

Types of capital

Debt

Equity

Retained Earnings

Preference

Cost of Capital for each type of capital

Weighted Cost of Capital

Marginal Cost of Capital (w.r.t. Expansion).

Designing Capital Structure Alternatives

Types of Leverages (Combined , Operating , Financial)

Capital Budgeting:

Introduction, types of capital, sources of capital

Evaluation of capital expenditure proposal from given cash flow,
concept of present value

Techniques of appraisal of investment proposal

Payback period method, Average rate of return method

Net present value method

Profitability index method

Business Restructuring

Importance

Financial Implication

Valuation

Types of Business Restructuring

Merger

Amalgamation

De-Merger

Other Restructurings

(Elementary accounting problems – testing fundamental knowledge only)

Long Term & Short Term Sources Of Finance

Traditional & Modern instruments of Finance Including
Securitizations.

Reference Books:

- 1) **Chandra Prasana**, "Financial Management", Tata Mc Graw
- 2) **Khan M & Jain**, "Financial Management", Tata Mc Graw
- 3) **James , C**, "Financial Management & Policy", Prentice Hall of India
- 4) **Pandey, I.M**, "Financial Management", Tata Mc Graw Hill
- 5) **Horne, J., Walchowicz, J.**, "Fundamentals of Financial Management", Prentice Hall of India
- 6) **Bhalla V**, "Investment Management", S. Chand
- 7) **Diwan P**, "Financial Management", Pentagon
- 8) **Bhalla V.K**, "Financial Management", Amol
- 9) **Kapur S.**, "Financial Management", S. K. Publishers
- 10) **Alexander Hamilton**, "Financial Management Handbook", Global Books
- 11) **Helfert**, "Techniques of Financial Management", Jaico Publishing House.

SEMESTER IV

Environmental Safety, health and Management (B.Sc. Environment Management Sem IV)

UNIT-I

Definition- need for good health- factors affecting health. Types of diseases {deficiency, infection, pollution diseases}. Personal hygiene- food (balanced diet). Food habits & cleanliness, food adulterants, avoiding smoking, drugs & alcohols.

UNIT-II

Public health: communicable diseases, mode of transmission (epidemic and endemic diseases). Management of hygiene in public places (railway stations, bus stands and other public places).

UNIT-III

Occupational health and safety. Occupational health and hazards-physical-chemical and biological. Occupational diseases- prevention and control.

UNIT-IV

Industrial safety and management techniques: Industrial safety standards and regulations. Accidents-definitions-prevention and control.

UNIT-V

Safety management system- concepts of safety management systems- EMS ISO 14000 and 14001. OSHA. PUBLIC LIABILITY INSURANCE ACT- MINING ACT.

REFERENCES

1. Scoot, R..M. 1997.Basic concepts of industrial hygiene, Lewis Publisher, New York
2. Diberardins L.J. , 1998.Hand book of occupational safety and health, John Willey, New York
3. Park J.E. and Park, Preventive and social medicine.
4. Schilling R.S.E. 1973.Occupational health practice, Buffer Worth, London,
5. Khan M.A.O., John.P, Bederka.S. , 1974. Survival in toxic environment, Academic Press, New York .

Environmental Pollution and Management (B.Sc. Environment Management) Sem IV

UNIT-I

Water pollution – sources & types of water pollution – physical, chemical & biological – effect of water pollution. Drinking water quality standards waste water treatment – primary, secondary, tertiary-water pollution prevention & control act – 1974.

UNIT-II

Air pollution –structure and composition of atmosphere – classification, sources & effects of air pollution – Acid rain –green house effect – global warming – Ozone depletion.

UNIT-III

Prevention and control of air pollution particulate control – settling chamber, scrubber, bag filter, cyclones electrostatic precipitators. Gaseous emission control methods. Air pollution prevention and control Act 1981.

UNIT-IV

Soil Pollution – soil pollutants – types – sources, effects & Control. Noise Pollution – sources effects & Control.

UNIT-V

Government Agencies & Programs – The Tiwari committee – creation of NCEPC, Department of Environment & Forest – Function of State Pollution Control Board.

References

1. Rao, M. N and H.V.N. Rao (1993) Air Pollution, Tata McGraw – Hill Publishing Company Limited. New Delhi.
2. Kudesia, V.P and Ritu Kudesia (1992) Water Pollution, Pragati Prakashan Publication, Meerut.
3. Sawyer, C. N., P.L McCarty and G.F. Perkin (1994) Chemistry for Environmental Engineers, II Edition. McGraw-Hill.
4. Sharma, B.K and H.Kaur (1994) Soil and Noise Pollution. Goel Publishing House, Meerut.
5. Kumarasawmy, K., A. Alagappa Moses and M. Vasanthy (2004) Environmental Studies (A Text Book for All Under Graduate Students) Bharathidasan University Publications.

Environmental Economics – II Sem IV

Social Choice: Individual Preferences Regarding Environmental Protection; Biocentrism; Anthropocentrism; Sustainability; Pareto Criterion; Potential Pareto Improvement; Social Welfare Functions; Arrows Impossibility Theorem; Criticism of Utilitarianism

- Efficiency and Markets: Efficiency in the Exchange of Goods and Bads; Efficiency in Production; First Welfare Theorem; Second Welfare Theorem; Consumer and Producer Surplus; Cost Benefit Analysis
- Market Failure: Public Bads and Externalities - Public Goods and Bads; Pricing of Private versus Public Goods and Bads; Lindahl Prices and free riding; Externalities
- Methods to derive the Demand for Environmental Goods: Hedonic Price Method; Property Values; Wage Regressions and Value of Statistical Life; Household Production; Defensive Expenditures; Travel Cost Method; Stated Preferences via Contingent Valuation;
- Use versus Non-use values; Willingness to Pay versus Willingness to Accept
- Regulating Pollution: Command and Control vs.Environmental Taxes vs.Cap and Trade vs.Liability
- Pigouvian Fees: Single Polluter single damage; Single Polluter multiple damages; Multiple Polluter and the Equimarginal Principle; Fees Versus Subsidies; Fees and Imperfect Competition
- Regulation with Unknown Control Costs: Prices versus Quantities (Environmental Taxes versus Cap and Trade); Coase Theorem and Allocation of Property Rights.

Customer relationship management Sem IV

MODULE I

Changing Nature of Marketing and Customer Service – Marketing – An Introduction –The Marketing Orientation – Factors Necessitating a Re-look at Marketing Methods – Changing Social Trends – Lesser Government Controls Rising Income Levels – Threats from New Forms – Characteristics of the Empowered Customer – Increased Demand –Easy Access to Information – Emerging Trends in Marketing –Shorter Product Life Cycles.

MODULE II

Emergence of Permission Marketing – Experimental Marketing – Offering Complete Solution – Rewarding Loyal Customers- Disruptive Innovations – The Changing Nature of Customer Service – Challenges In Modern Day Customer Service -Emerging Trends in Services Marketing Mix –Customer Experience –The New Differentiator – Managing Service Better – Emergence of CRM –Economics of Building Customer Relationship – Customer Lifetime Value – Benefits of Customer Loyalty – Benefits of Choosing The Right Customers – Customer Value and Customer Satisfaction:Precursors to CRM – Customer Value.

MODULE III

Enhancing Value of Products and Services – Customer Satisfaction – CRM and Customer Satisfaction – Delighting the Customer – Measuring Relationship at Risk Effects on Customer Loyalty – Role of CRM on Various Stages of the Studies – The Customer Lifecycle – Role of CRM in Pre-purchase Stage – Role of CRM in Purchase Stage – Role of CRM in Usage Stage - Role of CRM In Re-purchase Stage – Role of CRM in Winning Back Lost Customers – CRM – The Basis Concepts – Consideration to Decide the Key Customers – Strategies for Key Customers

MODULE IV

Segmentations Campaign Management – Cross-selling and Up-selling – Multi – Channels – Sales Force Automation – Operational and Analytical CRM – Planning for CRM – Building Customer Centricity – Setting CRM Objectives – Defining Data Requirements – Planning The Requirements Elements in the CRM Plan – Relevant Issues in the CRM Plan - CRM Strategy – Strategic Orientation for CRM - Extending the Concept of Relationship

MODULE V

The Technology Orientation - A Strategic Framework for CRM - Planning for Success – Change Management – Selling Change –Training – Role of IT and Tools for CRM – CRM Strategy and Technology – Capturing Data – Steps in Preparing the IT Systems for CRM – Choosing The CRM Tool – Using IT Systems for Better CRM – Issues for Consideration In CRM Tools Selection – Tools for CRM – e CRM – Basic Concepts of e CRM – Benefits of e CRM.

MODULE VI

Steps in e CRM – Success Factors in e CRM – Establishing Customer Relationship on the Internet – Complete Information for Customers – CRM Implementations – Preparing for CRM Implementation – Dimensions of CRM Implementations – Technology Issues in CRM Implementation – Steps in CRM Implementations – Expected Benefits of CRM Implementations – CRM Implementations –Best Practices - Guarding against CRM Failures – A Clearly defined CRM Strategy – Creating the Right Culture – Proper use of Knowledge Management – Ensuring that the CRM Implementation is Done Right – CRM In Practice – CRM In Manufacturing –CRM in Insurance – CRM In Airlines – CRM IN Hotels – CRM in Telecom – CRM in SMB Segment

TEXT BOOK:

Kaushik Mukerjee, “Customer Relationship Management”, PHI, New Delhi, 2007.

Occupational Health & Safety Sem IV

- Health and safety foundations, Policy, Organizing for health and safety, Promoting a positive Health and Safety Culture;
- Risk assessment, Principles of control, Incident investigation, Recording and Reporting;
- Movement of people and vehicles, Hazards and Control, Manual and Mechanical Handling Hazards and Control;
- Work Equipment Hazards and Control, Electrical hazards and control, Fire Hazards and Control;
- Chemical and Biological Health Hazards and Control;
- Physical and Psychological Health Hazards and Control;
- Construction activities - Hazards and Control;
- Monitoring, Review and Audit; and
- Cases, presentations and exercises.

Management Information Systems Sem IV

1	<ul style="list-style-type: none">❖ Basic Information Concepts and Definitions❖ Need for Information and Information Systems (IS) in an organization❖ Characteristics of Information and Organisation with respect to organization form, structure , philosophy, hierarchy etc
2	<ul style="list-style-type: none">❖ Types of IS – Transaction❖ Operational Control❖ Management Control❖ Decision Support❖ Executive Information Systems
3	<ul style="list-style-type: none">❖ Determining Information Needs for an Organisation/Individual Manager❖ Overview of use of data flow method, analysis of information for decision processes etc.
4	<ul style="list-style-type: none">❖ Strategic use of Information and IS – Use of Information for Customer Bonding❖ For Knowledge Management❖ For innovation,❖ For Managing Business Risks❖ For Creating a new business models and new business reality.
5	<ul style="list-style-type: none">❖ Information Security –❖ Sensitize students to the need for information security❖ Concepts such as confidentiality, Integrity and Availability. Types of threats and risk, overview of some of the manual, procedural and automated controls in real life IT environments.
6	<ul style="list-style-type: none">❖ Case Studies and Presentations

Reference Text:

1. MIS a Conceptual Framework by Davis and Olson
2. Analysis and Design of Information Systems by James Senn
3. Case Studies : Case on ABC Industrial Gases – Author : Prof Pradeep Pendse
Mrs Fields Cookies – Harvard Case Study
Select Business Cases identified by each Group of Students for work thru the entire subject
- 2-3 Cases on Requirements Management – Author : Prof Pradeep Pendse
4. O'brien: MIS (TMH)
5. Ashok Arora & Bhatia: Management Information Systems (Excel)
6. Jessup & Valacich: Information Systems Today (Prentice Hall India)
7. L. M. Prasad : Management Information Systems (Sultan Chand)

Project Submission – I