Teaching Plan

Name of the Faculty : Dr. Rubina Mittal

Name of the Course : B. Sc. (Mathematical Science)

Semester : II Sec (if any) :None

Title of the Paper : Inventory Marketing Management

Month	Topics Covered	References
January 2016	1. concept of Marketing & its role in organizations. 2. Marketing decisions. 3. Classification of marketing structure. 4. Concepts & Problems in Inventory Systems. 5. Classification of inventory systems, different costs & their estimations 6. Deterministic Inventory on models with & without lead time & with & without shortages with numericals.	**Donald waters: Inventory and management** **Hadley and Whitin: Inventory systems** **Hppley and hassey : Qunatitative models** Operations research by J K sharma, Taha etc Various websites
February 2016	7. Inventory models with all units discounts & their numricals. 8. Single period stochastic inventory models 9. Demand elasticity.	Same as above
March 2016	10 Production scheduling problems. 11 ABC Analyses. 12 Joint optimization of price quality & promotional efforts.	Same as above

April 2016	13 Pricing decisions. 14 Media allocation for advertisement. 15 Brand switching analysis.	Same as above

Assignments

22 Jan, 19 th Feb, 20th March , 14 th April 2016

Tests 28 Jan, 17 march 2016

Practicals are done every Friday

Teaching Plan

Name of the Faculty : Ms. Rajat Arora

Name of the Course : B.Sc. Mathematical Sciences

Semester : II Sec (if any) :

Title of the Paper : Inventory Systems and Marketing Management

Month	Topics Covered	References
January February March	1. Problems based on selective inventory classification(ABC and FNS analysis). 2. To find optimal inventory policy for EOQ model. 3. To solve multi-item inventory model with different constraints. 4. To solve all-units quantity discounts model. 5. To find optimal inventory policy for probabilistic inventory model with discrete demand. 6. To find optimal inventory policy for probabilistic inventory model with continuous demand. 7. Solution of procurement/ production of scheduling model. 8. Problems based on media allocation for advertisement.	Donald Waters-Inventory Control and Management, John Wiley 2010 Buffa and Sarin-Modern Production and Operations Management, 8th Edition, Wiley India 2009. Graham J. Hooley and Michael K. Hassey, Quantitative Methods in Marketing , 2nd Edition, International Thomson Business Press,1999. F.S. Hillier and G.J. Lieberman: Introduction to Operational Research, 9th Edition, Tata Mc. Graw Hill, Singapore 2009

April	9. Problems based on brand switching analysis. 10. Mock test	

Note : The tentative date of Assignment/test/Project may also be provided.

The schedule of Practicals may also be provided

Teaching Plan

Name of the Faculty : Dr. Ritu Arora

Name of the Course : Applied Mathematical Science

Semester : II Sec (if any):

Title of the Paper : Calculus and Geometry

Month	Topics Covered	References
January	Limit and continuity of a function: (ε-δ and sequential approach). Properties of continuous functions including intermediate value	H. Anton, I. Bivens and S. Davis: *Calculus*, John Wiley and Sons (Asia) Pte. Ltd. 2002. 2. R.G. Bartle and D.R. Sherbert :

	theorem, Differentiability, Rolle's theorem, Lagrange's mean value theorem, Cauchy mean value theorem with geometrical interpretations. Uniform continuity.	*Introduction to Real Analysis* , **John Wiley and Sons (Asia) Pte, Ltd; 1982**
February	Definitions and techniques for finding asymptotes singular points, Tracing of standard curves. Integration of irrational functions. Reduction formulae. Rectification. Quadrature. Volumes. Techniques for sketching parabola, ellipse and hyperbola.	
March	Reflection properties of parabola, ellipse and hyperbola Classification of quadratic equations representing lines, parabola, ellipse and hyperbola. Differentiation of vector valued functions, gradient, divergence, curl and their geometrical interpretation.	
April	Spheres, Cylindrical surfaces. Illustrations of graphing standard quadric Surfaces like cone, ellipsoid.	

Note : Assignment will be given in 3rd week of February to be submitted by 1st week of March. Test will be conducted in last week of March.

Teaching Plan

Name of the Faculty: Dr. (Ms). Shalu Chandra

Name of the Course and Subject: B.Sc (H) Mathematical Science (Environmental Science)

Semester: II Sec (if any):

Title of the paper: Ability enhancement credit course (AECC Jan- May 2016)

Month	Topics Covered	References
January	**Unit 6 : Environmental Policies & Practices** • Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture • Environment Laws: Environment Protection Act; Air	Bharucha, E. 2003, Textbook for Environmental Studies, University Grants Commission, New Delhi and Bharati Vidyapeeth

	(Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. •Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context. **(7 lectures)** **1 lecture per week field trip/presentation**	Institute of Environmental Education and Research, Pune. 361. Odum, E.P., Odum, H.T. & Andrews, J. 1971. Fundamentals of Ecology. Philadelphia: Saunders. Singh, J.S., Singh, S.P. and Gupta, S.R. 2006. Ecology, Environment and Resource Ecology, Environment and Resource Conservation. Anamaya Publishers.
February	**Unit 5 : Environmental Pollution** •Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution •Nuclear hazards and human health risks• Solid waste management: Control measures of urban and industrial waste. • Pollution case studies. **(8 lectures)** **1 lecture per week field trip/presentation**	-do-
March	**Unit 7 : Human Communities and the Environment** • Human population growth: Impacts on environment, human health and welfare.• Resettlement and rehabilitation of project affected persons; case studies.• Disaster management: floods, earthquake, cyclones and landslides. (**6 lectures)** **1 lecture per week field trip/presentation**	-do-
April	**Unit 7 : Human Communities and the Environment** • Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.• Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. • Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi). (**6 lectures)** **1 lecture per week field trip/presentation** The tentative date of assignment/test/project Assignment: 15 March 2016 Submission: March 2016 Test/Presentation: 25 February 2016	-do-

Note: The tentative date of assignment/test/project may also be provided.

The schedule of Field trip may also be provided.

Teaching Plan

Name of the Faculty: Ms. Geetanjali Sageena

Name of the Course: B.Sc. (H) Mathematical Science

Semester: II Sec (if any): -

Title of the paper: Ability enhancement credit course (AECC Jan- May 2016)

Month	Topics Covered	References
January	Unit 1 : Introduction to environmental studies Multidisciplinary nature of environmental studies;• Scope and importance; Need for public awareness. **(2 lectures)** **1 lecture per week field trip/ presentation**	Bharucha, E. 2003, Textbook for Environmental Studies, University Grants Commission, New Delhi and Bharati Vidyapeeth Institute of Environmental Education and Research, Pune. 361. Odum, E.P., Odum, H.T. & Andrews, J. 1971. Fundamentals of Ecology. Philadelphia: Saunders. Singh, J.S., Singh, S.P. and Gupta, S.R. 2006. Ecology, Environment and Resource Ecology, Environment and Resource Conservation. Anamaya Publishers.
February	Unit 2 : Ecosystems What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem:• food chains, food webs and ecological succession. Case studies of the following ecosystems : a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) **(6 lectures)** **1 lecture per week field trip/**	-do-

	presentation	
March	Unit 3 : Natural Resources : Renewable and Non-renewable Resources Land resources and landuse change; Land degradation, soil erosion and desertification.• Deforestation: Causes and impacts due to mining, dam building on environment, forests,• biodiversity and tribal populations. Water : Use and over-exploitation of surface and ground water, floods, droughts, conflicts• over water (international & inter-state). Energy resources : Renewable and non renewable energy sources, use of alternate energy• sources, growing energy needs, case studies. **(8 lectures)** **1 lecture per week field trip/ presentation**	-do-
April	Unit 4 : Biodiversity and Conservation Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones• of India; Biodiversity patterns and global biodiversity hot spots India as a mega-biodiversity nation; Endangered and endemic species of India• Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological• invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and• Informational value. **(8 lectures)** **1 lecture per week field trip/ presentation**	-do-

The tentative date of assignment/test/project

Assignment: 15 March 2016

Test/ Presentation: 25 February 2016