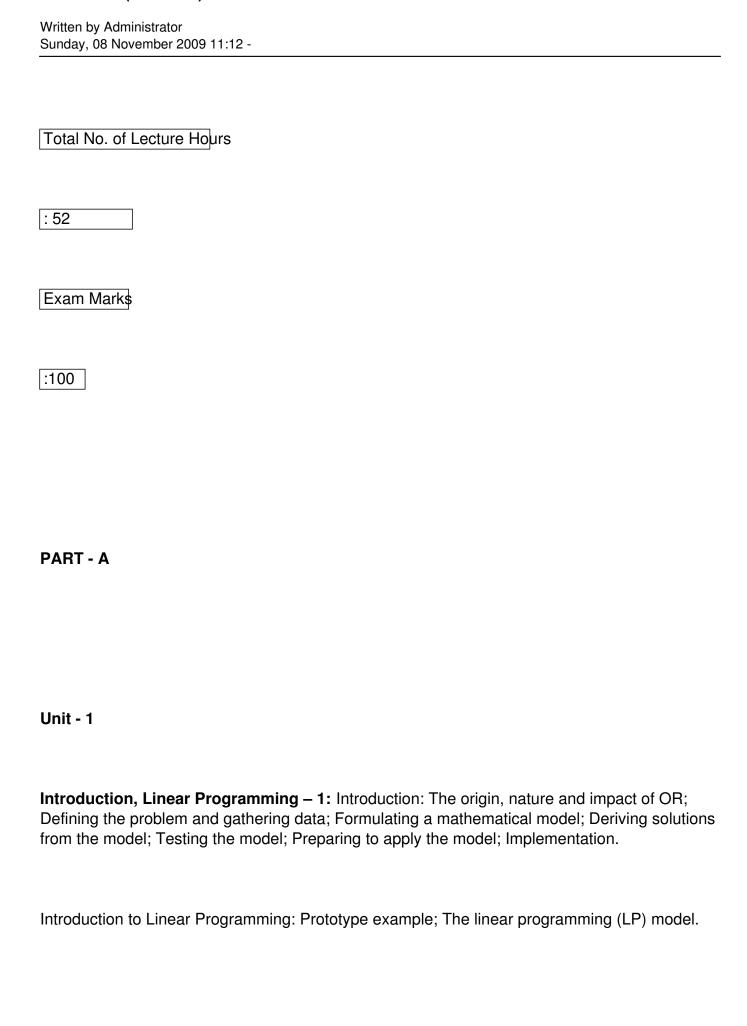
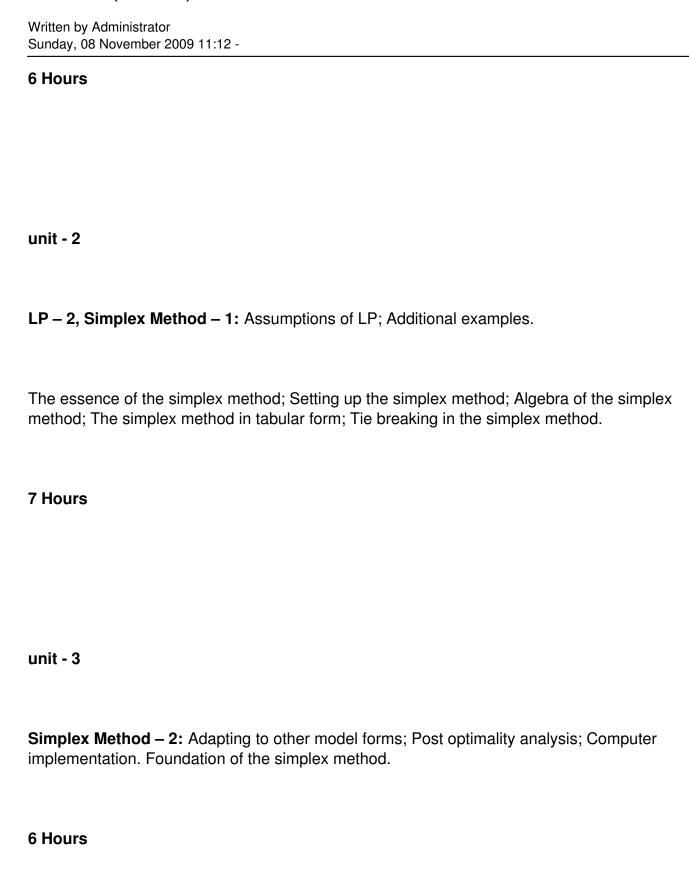
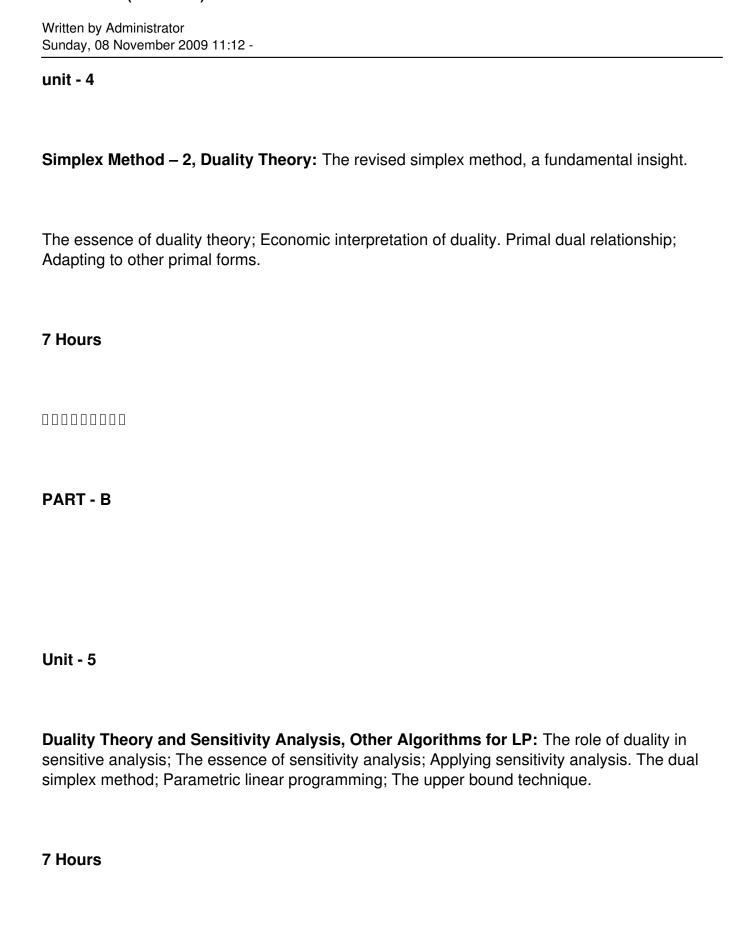
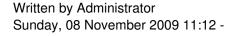
Written by Administrator Sunday, 08 November 2009 11:12 -
Operations Research
Subject Code
: 06IS661
IA Marks
: 25
No. of Lecture Hours/Week
: 04
Exam Hours
: 03









unit - 6

Transportation and Assignment Problems: The transportation problem; A streamlined simplex method for the transportation problem; The assignment problem; A special algorithm for the assignment problem.

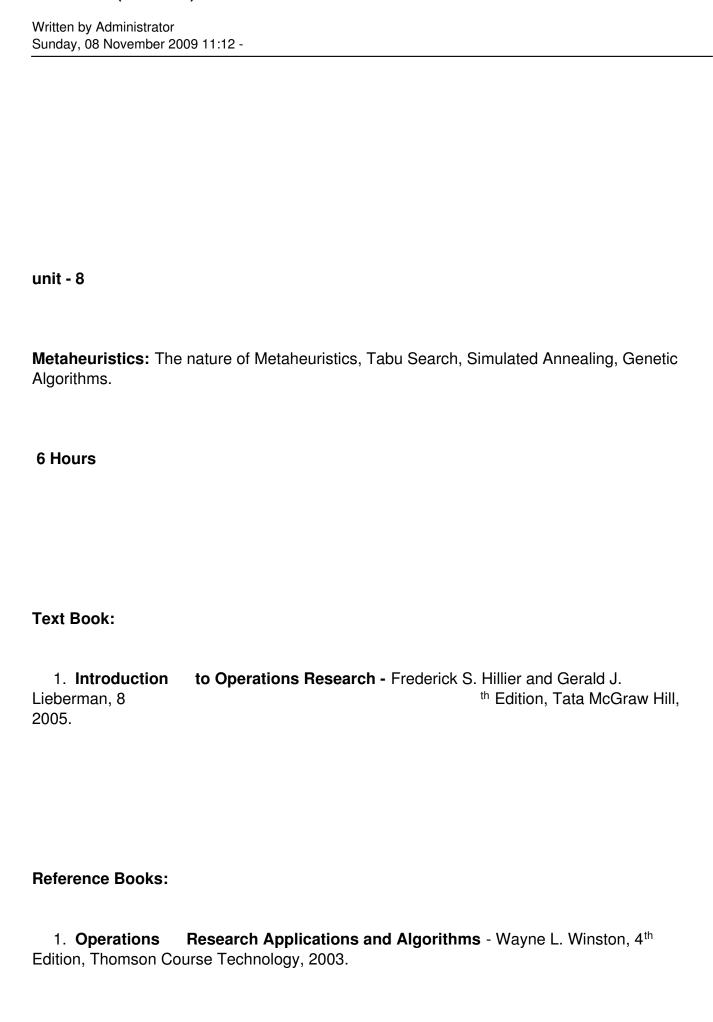
7 Hours

unit - 7

Game Theory, Decision Analysis: Game Theory: The formulation of two persons, zero sum games; Solving simple games- a prototype example; Games with mixed strategies; Graphical solution procedure; Solving by linear programming, Extensions.

Decision Analysis: A prototype example; Decision making without experimentation; Decision making with experimentation; Decision trees.

6 Hours

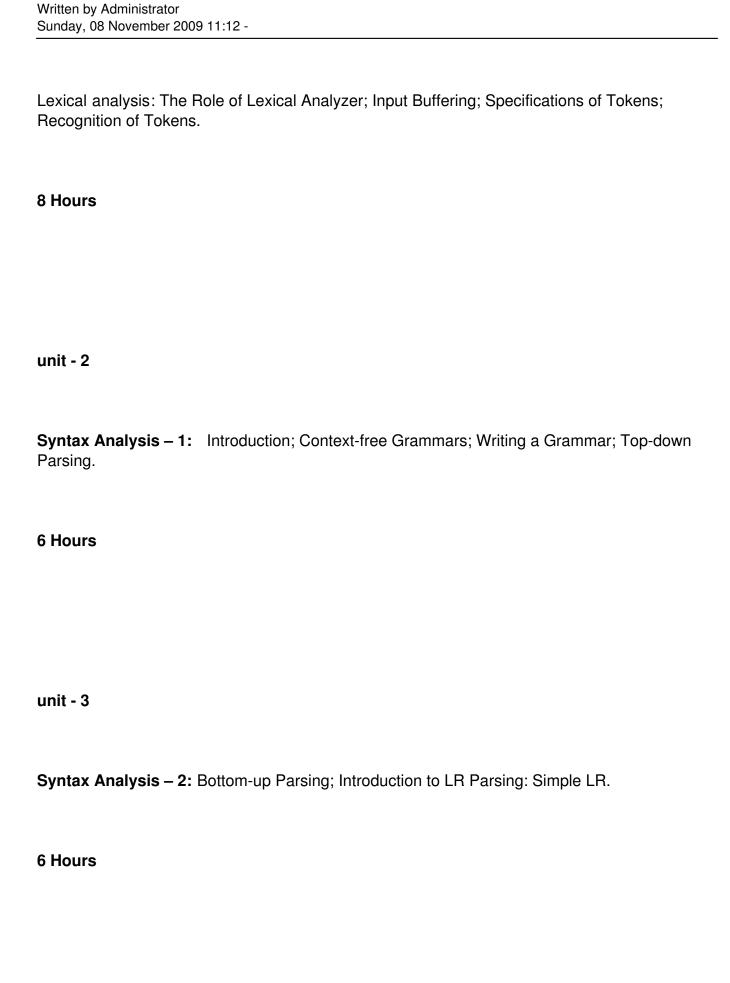


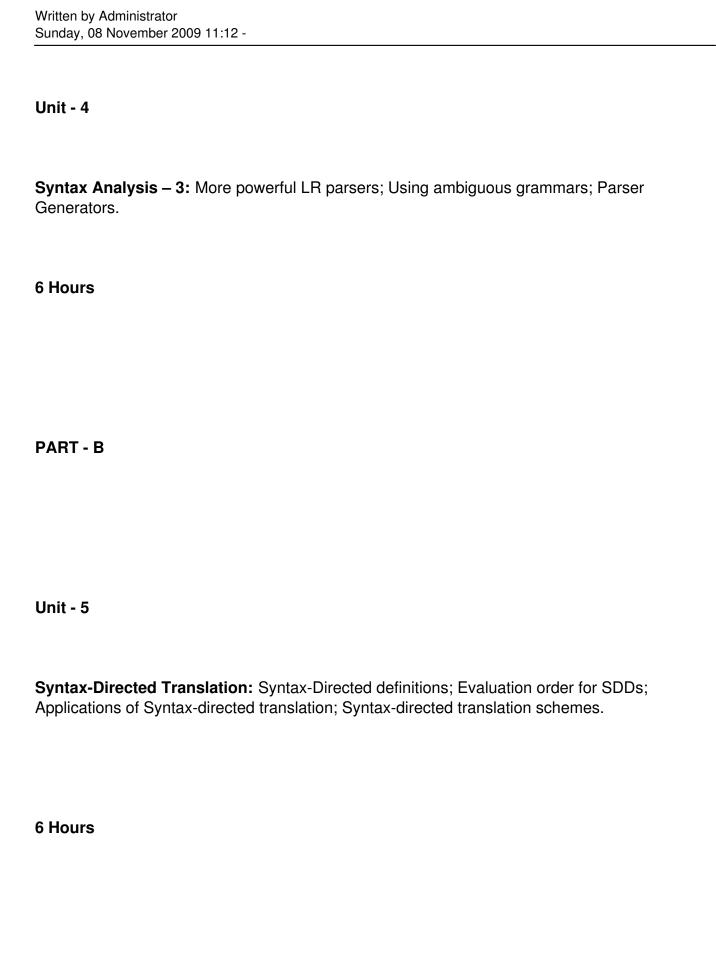
ELECTIVE-I (GROUP	A)	
Written by Administrator Sunday, 08 November 2	009 11:12 -	
2. Operations Hall India, 2007.	Research: An Introduction - Hamdy A Taha, 8 th Edition,	Prentice
Compiler Design		
Subject Code		
: 06IS	6662	
IA Marks		

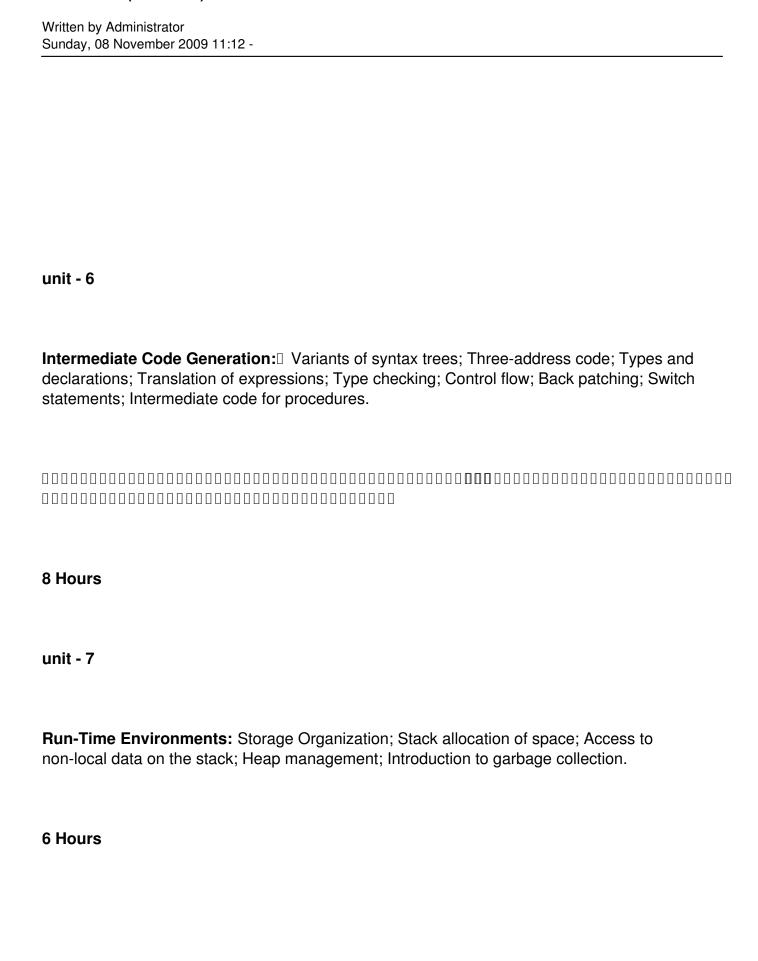
: 25

No. of Lecture Hours/Week

Written by Administrator Sunday, 08 November 2009 11:12 -
: 04
Exam Hours
: 03
Total No. of Lecture Hours
: 52
Exam Marks
: 100
PART - A
Unit - 1
Introduction, Lexical analysis: Language processors; The structure of a Compilers; The evolution of programming languages; The science of building a compiler; Applications of Compiler technology; Programming language basics;







Written by Administrator Sunday, 08 November 2009 11:12 -
unit - 8
Code Generation: Issues in the design of Code Generator; The Target language; Addresses in the target code; Basic blocks and Flow graphs; Optimization of basic blocks; A Simple Code Generator.
6 Hours
Text Book:
1. Compilers- Principles, Techniques and Tools - Alfred V Aho, Monica S. Lam, Ravi Sethi, Jeffrey D Ullman, 2 nd Edition, Addison-Wesley, 2007.
Reference Books:
1. Crafting a Compiler with C - Charles N. Fischer, Richard J. leBlanc, Jr, Pearson Education, 1991.
2. Modern Compiler Implementation in C - Andrew W Apple, Cambridge University Press, 1997.

Written by Administrator

Sunday,	08 Novemb	per 2009 11:12	-					
3. C	Compiler (Construction	Principles	& Practice -	Kenneth	C Louden,	Thomson E	Education,
D-4- 0		!						
Data C	ompress	ion						
Subjec	t Code							
:		06IS663		7				
•		0013003	1000					
IA Mari	ks							
	: 25							

Written by Administrator Sunday, 08 November 2009 11:12 -
No. of Lecture Hours/Week
: 04
Exam Hours
: 03
Total No. of Lecture Hours
: 52
Exam Marks
: 100

PART - A

Written by Administrator Sunday, 08 November 2009 11:12 -

Unit - 1

Introduction, Lossless Compression -1: Compression techniques; Modeling and coding. Mathematical preliminaries for lossless compression: Overview; Basic concepts of Information Theory; Models; Coding; Algorithmic information theory; Minimum description length principle. Huffman coding: Overview; The Huffman coding algorithm, Minimum variance

Huffman codes; Application of Huffman coding for text compression.

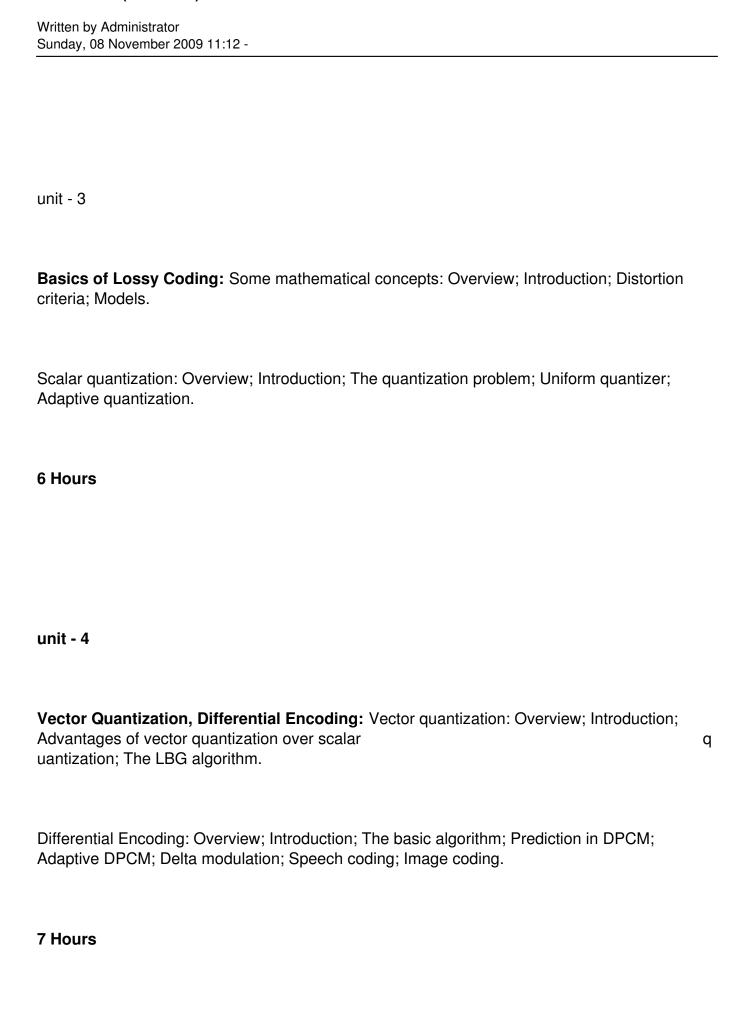
7 Hours

unit - 2

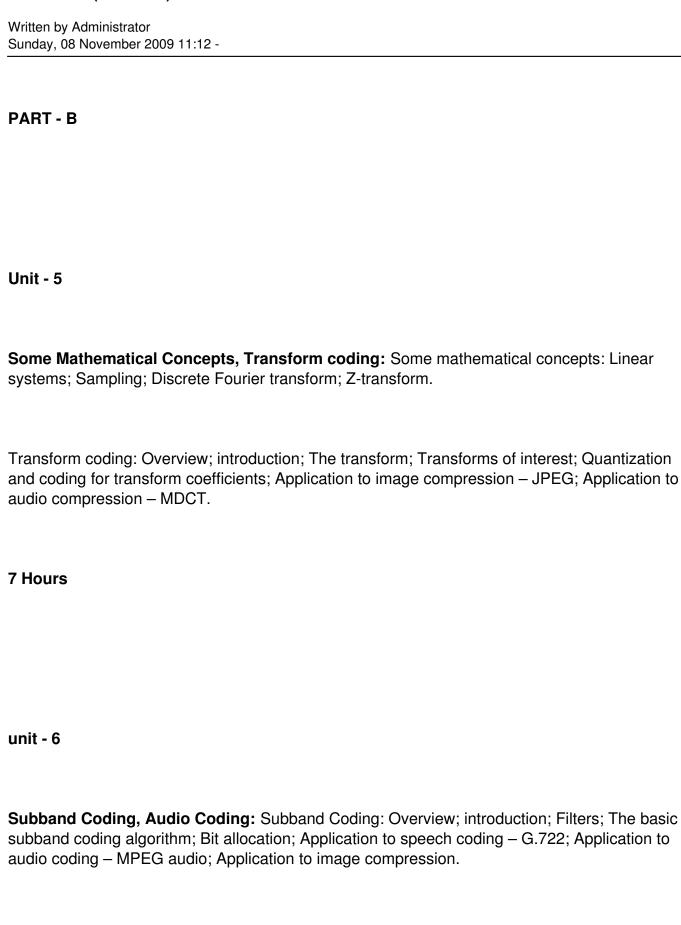
Lossless Compression – 2: Dictionary Techniques: Overview; Introduction; Static dictionary; Adaptive dictionary; Applications: UNIX compress, GIF, PNG, V.42.

Lossless image compression: Overview; Introduction; Basics; CALIC; JPEG-LS; Multiresoution approaches; Facsimile encoding: Run-length coding, T.4 and T.6.

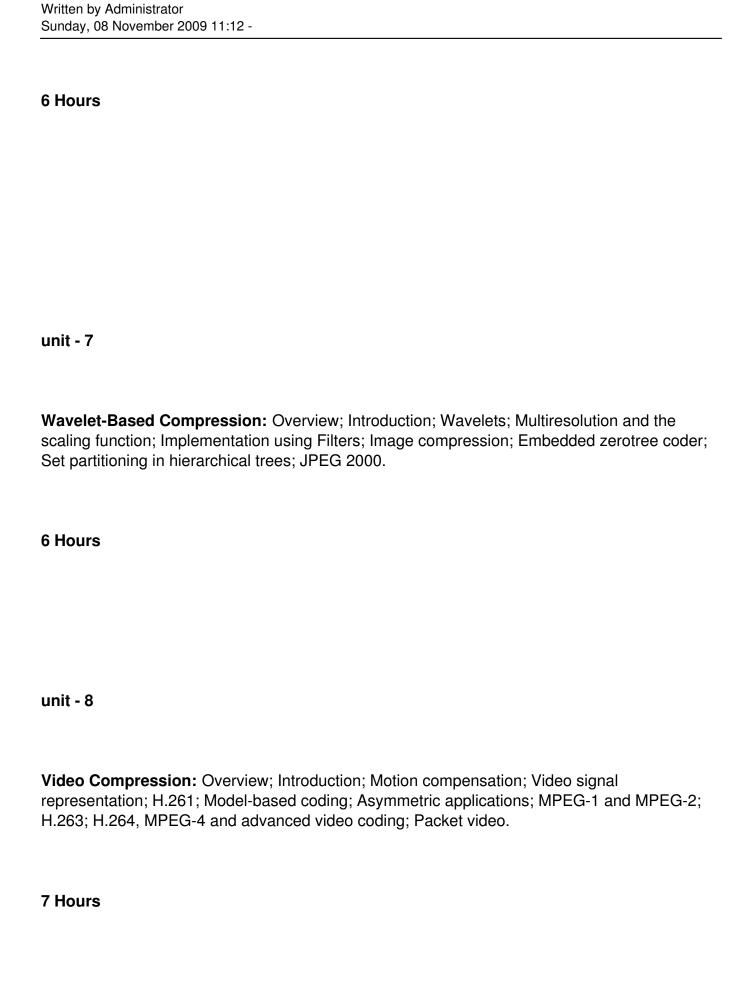
6 Hours



Dolby AC3; Other standards.



Audio Coding: Overview; Introduction; MPEG audio coding; MPEG advanced audio coding;

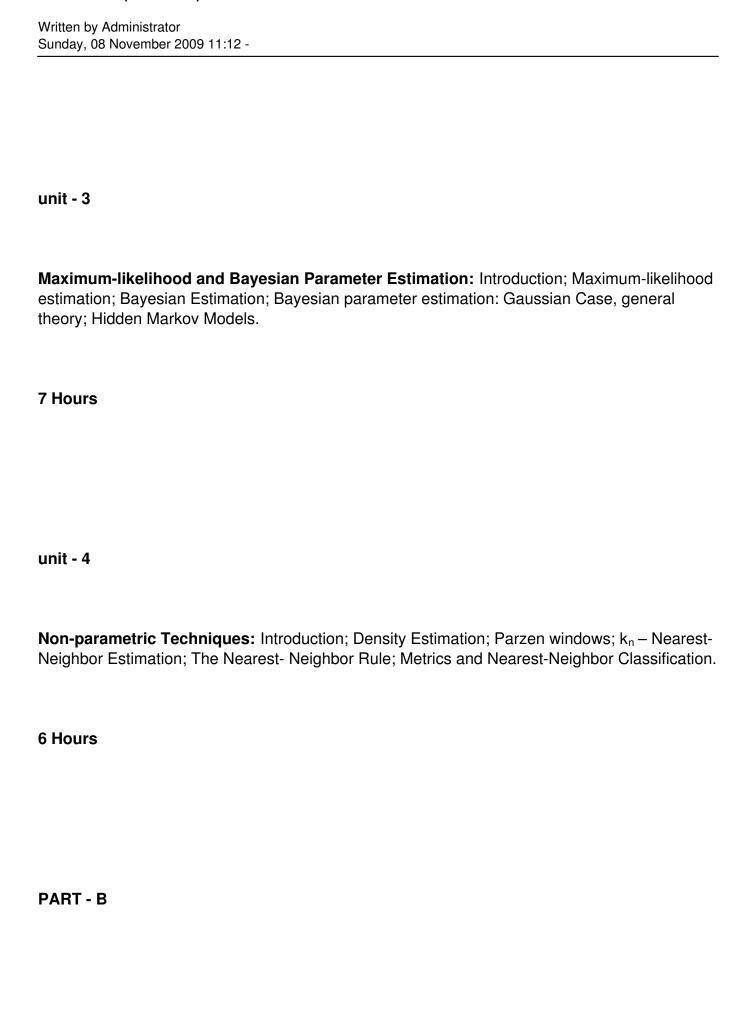


Written by Administrator Sunday, 08 November 2009 11:12 -
Text Book:
1. Introduction to Data Compression- Khalid Sayood, 3 rd Edition, Elsevier, 2006
Reference Book:
1. Data Compression the Complete Reference - D. Salomon, Springer, 1998.
Pattern Recognition

Written by Administrator Sunday, 08 November 2009 11:12 -
Subject Code
: 06IS664
IA Marks
: 25
No. of Lecture Hours/Week
: 04
Exam Hours
: 03
Total No. of Lecture Hours
: 52
Exam Marks

Written by Administrator

Sunday, 08 November 2009 11:12 -
: 100
PART - A
Unit - 1
Introduction: Machine perception, an example; Pattern Recognition System; The Design Cycle; Learning and Adaptation.
6 Hours
unit - 2
Bayesian Decision Theory: Introduction, Bayesian Decision Theory; Continuous Features, Minimum error rate, classification, classifiers, discriminant functions, and decision surfaces; The normal density; Discriminant functions for the normal density.
7 Hours



Written by Administrator Sunday, 08 November 2009 11:12 -

Unit - 5

Linear Discriminant Functions: Introduction; Linear Discriminant Functions and Decision Surfaces; Generalized Linear Discriminant Functions; The Two-Category Linearly Separable case; Minimizing the Perception Criterion Functions; Relaxation Procedures; Non-separable Behavior; Minimum Squared-Error procedures; The Ho-Kashyap procedures.

7 Hours

unit - 6

Stochastic Methods: Introduction; Stochastic Search; Boltzmann Learning; Boltzmann Networks and Graphical Models; Evolutionary Methods.

6 Hours

unit - 7

Non-Metric Methods: Introduction; Decision Trees; CART; Other Tree Methods; Recognition with Strings; Grammatical Methods.

Written by Administrator Sunday, 08 November 2009 11:12 -
6 Hours
unit - 8
Unsupervised Learning and Clustering: Introduction; Mixture Densities and Identifiability; Maximum-Likelihood Estimates; Application to Normal Mixtures; Unsupervised Bayesian Learning; Data Description and Clustering; Criterion Functions for Clustering.
7 Hours
Text Book:
1. Pattern Classification - Richard O. Duda, Peter E. Hart, and David G.Stork, 2 nd Edition Wiley-Interscience, 2001.

Written by Administrator Sunday, 08 November 2009 11:12 -

Reference Books:
. Pattern Recognition and Image Analysis - Earl Gose, Richard Johnsonbaugh, Steve lost, Pearson Education, 2007.
Computer Graphics and Visualization
Subject Code
06IS665
A Marks

Written by Administrator Sunday, 08 November 2009 11:12 -
: 25
No. of Lecture Hours/Week
: 04
Exam Hours
: 03
Total No. of Lecture Hours
: 52
Exam Marks
: 100

PART - A

Written by Administrator Sunday, 08 November 2009 11:12 -

Unit - 1

INTRODUCTION: Applications of computer graphics; A graphics system; Images: Physical and synthetic; Imaging systems; The synthetic camera model; The programmer's interface; Graphics architectures; Programmable pipelines; Performance characteristics.

Graphics Programming: The Sierpinski gasket; Programming two-dimensional applications.

7 Hours

unit - 2

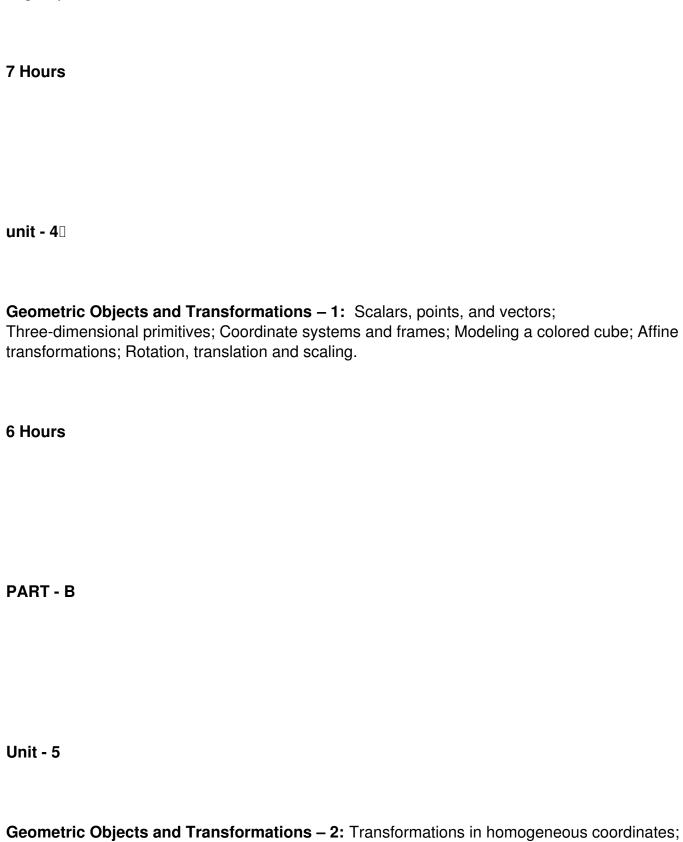
The Open GL: The OpenGL API; Primitives and attributes; Color; Viewing; Control functions; The Gasket program; Polygons and recursion; The three-dimensional gasket; Plotting implicit functions.

6 Hours

unit - 3

Written by Administrator Sunday, 08 November 2009 11:12 -

Input and Interaction: Interaction; Input devices; Clients and servers; Display lists; Display lists and modeling; Programming event-driven input; Menus; Picking; A simple CAD program; Building interactive models; Animating interactive programs; Design of interactive programs; Logic operations.



6 Hours

Written by Administrator Sunday, 08 November 2009 11:12 -Concatenation of transformations; OpenGL transformation matrices; Interfaces to three-dimensional applications; Quaternions. **5 Hours** unit - 6 **Viewing:** Classical and computer viewing; Viewing with a computer; Positioning of the camera; Simple projections; Projections in OpenGL; Hidden-surface removal; Interactive mesh displays; Parallel-projection matrices; Perspective-projection matrices; Projections and shadows. 7 Hours unit - 7 **Lighting and Shading:** Light and matter; Light sources; The Phong lighting model; Computation of vectors; Polygonal shading; Approximation of a sphere by recursive subdivisions; Light sources in OpenGL; Specification of materials in OpenGL; Shading of the sphere model; Global illumination.

Written by Administrator Sunday, 08 November 2009 11:12 -

 n	iŧ	_	2

Implementation: Basic implementation strategies; The major tasks; Clipping; Line-segment clipping; Polygon clipping; Clipping of other primitives; Clipping in three dimensions; Rasterization; Bresenham's algorithm; Polygon rasterization; Hidden-surface removal; Antialiasing; Display considerations.

8	Н	^		rs
u		v	u	13

Text Book:

1 Interactive Computer Graphics A Top-Down Approach with OpenGL - Edward Angel, 5 Edition, Addison-Wesley, 2008.

Reference Books:

- 1 **Computer Graphics Using OpenGL -** F.S. Hill,Jr., 2nd Edition, Pearson education, 2001.
- 2 **Computer Graphics -** James D Foley, Andries Van Dam, Steven K Feiner, John F Hughes, Addison-wesley 1997.

Written by Administrator Sunday, 08 November 2009 11:12 -

3 **Computer Graphics- Open GL-** Donald Hearn and Pauline Baker, 2nd Edition, Pearson Education, 2003.