

## BHARATHIAR UNIVERSITY: COIMBATORE-641 046

## M.B.A- Airline &amp; Airport Management

(For the CPOP students admitted during the academic year 2010-11 &amp; onwards)

## SCHEME OF EXAMINATIONS – CBCS Pattern

Course Title	Ins.hrs / week	Examinations				Credits
		Dur.H	CIA	Marks	Total	
<b>SEMESTER –I</b>						
1.1. Management Principles and Practice	5	3	25	75	100	4
1.2. Organizational Behaviors	5	3	25	75	100	4
1.3. Managerial Economics	4	3	25	75	100	4
1.4. Financial and Management Accounting	5	3	25	75	100	4
1.5. Quantitative Methods for Management	5	3	25	75	100	4
1.6. Corporate Communication	4	3	25	75	100	4
1.7. Computer Applications in Management using SAP*	2	-	-	-	-	-
<b>SEMESTER –II</b>						
2.1. Operations Management	5	3	25	75	100	4
2.2. Marketing Management	4	3	25	75	100	4
2.3. Financial Management	5	3	25	75	100	4
2.4. Human Resource Management	4	3	25	75	100	4
2.5. Quantitative Techniques	5	3	25	75	100	4
2.6. Research Methods for Management	5	3	25	75	100	4
2.7. Computer Applications in Management using SAP* - Practical	2	3	40	60	100	4
<b>SMESTER – III</b>						
3.1. Business Ethics and Global Business Environment	5	3	25	75	100	4
3.2. Management Information System	5	3	25	75	100	4
3.3. Airline and Airport Operations	5	3	25	75	100	4
3.4. Strategic Airport Planning and Marketing	5	3	25	75	100	4
3.5. Air Traffic Control	5	3	25	75	100	4
3.6. Aircraft Maintenance Management	5	3	25	75	100	4
3.7. Summer Placement Project Report & Viva-Voce	-	-	20	80	100	4
<b>SEMESTER – IV</b>						
4.1. Strategic Management : Indian Global Context	6	3	25	75	100	4
4.2. Airline Marketing and Strategic Airline Alliances	6	3	25	75	100	4
4.3. Aviation Safety and Security	6	3	25	75	100	4
4.4. Aviation Legal Environment	6	3	25	75	100	4
4.5. Aviation Resource Management	6	3	25	75	100	4
<b>TOTAL</b>	-	-	-	-	<b>2500</b>	<b>100</b>

\* The Course will be taught during I and II Semesters.

## SEMESTER – I

### 1.1. MANAGEMENT PRINCIPLES AND PRACTICE

#### **Unit I**

Management : Science, Theory and Practice - The Evolution of Management Thought and the Patterns of Management Analysis - Management and Society : The External Environment, Social Responsibility and Ethics - Global and Comparative Management - The Basis of Global Management.

#### **Unit II**

The Nature and Purpose of Planning - Objectives - Strategies, Policies and Planning Premises - Decision Making - Global Planning.

#### **Unit III**

The Nature of Organizing and Entrepreneurship - Organizational Structure : Departmentation - Line/Staff Authority and Decentralization - Effective Organizing and Organizational Culture - Global Organizing.

#### **Unit IV**

Co-ordination functions in Organisation - Human Factors and Motivation - Leadership - Committees and group Decision Making - Communication - Global Leading.

#### **Unit V**

The System and Process of Controlling - Control Techniques and Information Technology - Productivity and Operations Management - Overall Control and toward the Future through Preventive Control - Global Controlling and Global Challenges.

#### **References :**

1. Koontz & Weirich, Essentials of Management, Tata McGraw Hill.
2. VSP Rao, V Hari Krishna – Management: Text and Cases, Excel Books, I Edition, 2004
3. Stoner & Wankai, Management, PHI.
4. Robert Krcitner, Management, ATTBS.
5. Weirich & Koontz, Management - A Global perspective, McGraw Hill.
6. Helliregarl, Management, Thomson Learning, 2002.
7. Robbins.S.P., Fundamentals of Management, Pearson, 2003.

### 1.2. ORGANISATIONAL BEHAVIOUR

#### **Unit I**

Organisational Behaviour : History - evaluation, Challenges & opportunities, contributing disciplines, management functions and relevance to Organisation Behaviour.

Personality - Determinants, structure, behaviour, assessment, psycho-analytical social learning, job-fit, trait theories.

#### **Unit II**

Emotions and Emotional Intelligence as a managerial tool. Implications of EI on managers and their performance. Attitudes - relationship with behaviour, sources, types, consistency, work attitudes, values - importance, sources, types, ethics and types of management ethics.

Perception - Process, Selection, Organisation Errors, Managerial implications of perception.

Learning - classical, operant and social cognitive approaches. Implications of learning on managerial performance.

### **Unit III**

Stress - Nature, sources, Effects, influence of personality, managing stress.  
Conflict - Management, Levels, Sources, bases, conflict resolution strategies, negotiation.  
Foundations of group behaviour : linking teams and groups, Stages of development Influences on team effectiveness, team decision making. Issues in Managing teams.

### **Unit IV**

Organisational change - Managing planned change. Resistance to change - Approaches to managing organisational change - Organisational Development - values - interventions, change management.

Organisational politics - Political behaviour in organisation, Impression management, Self monitoring. Organisational culture - Dynamics, role and types of culture and corporate culture, ethical issues in organisational culture, creating and sustaining culture.

### **Unit V**

Organisational Behaviour responses to Global and Cultural diversity, challenges at international level, Homogeneity and heterogeneity of National cultures, Differences between countries, The Challenges of work force diversity and managing diversity Cases.

### **References :**

1. Robbins.S. Organisational Behaviour, X edn., Prentice-Hall, India.
2. Hellinegal Slocum, Woodman, Organisational Behaviour, IX edn., Thomson learning.
3. Umasekaran, Organisational Behaviour, Tata McGraw Hill.
4. Robbins S.P., Concepts contrivances and applications, Prentice Hall.
5. Umasekaran, Organisational Behaviour.
6. Helliregal.et.al, Organisational Behaviour, Thomson Learning.
7. McShane & Glinow, Organisational Behaviour, Tata McGraw Hill.
8. Harris & Hartman, Organisational Behaviour, Jaico, 2003.

## 1.3. **MANAGERIAL ECONOMICS**

**UNIT I :** Managerial Economics - meaning, nature and scope - Managerial Economics and business decision making - Role of Managerial Economist - Fundamental concepts of Managerial Economics.

Demand Analysis - meaning, determinants and types of demand - Elasticity of demand.

**UNIT II :** Supply meaning and determinants - production decisions - production functions - Isoquants, Expansion path - Cobb-Douglas function, Cost concepts - cost - output relationship - Economies and diseconomies of scale – cost functions.

**UNIT III :** Market structure - characteristics - Pricing and output decisions - methods of pricing - differential pricing - Government intervention and pricing.

**UNIT IV:** Profit - Meaning and nature - Profit policies - Profit planning and forecasting - Cost volume profit analysis - Investment analysis.

**UNIT V :** National Income - Business cycle - inflation and deflation - balance of payments - Monetary and Fiscal Policies

**References :**

1. Joel Dean - Managerial Economics, Prentice Hall/Pearson.
2. Rangarajan - Principles of Macro Economics, Tata McGraw Hill.
3. Atmanand, Managerial Economics, Excel, 2001.
4. Athmanand.R., Managerial Economics, Excel, 2002, New Delhi.
5. Mankar.V.G., Business Economics, Macmillan, Business Book, 1999.

1.4. **FINANCIAL AND MANAGEMENT ACCOUNTING**

**UNIT I**

Financial Accounting - Definition - Accounting Principles - Concepts and conventions - Trial Balance – Final Accounts (Problems) - Depreciation Methods-Straight line method, Written down value method, Sinking fund method.

**UNIT II**

Financial Statement Analysis - Objectives - Reorganizing the Financial Statement Information - Techniques of Financial Statement Analysis: Comparative Statements, Common - Size statement, Trend Percentage - Accounting Ratios: construction of balance sheet using ratios (problems)-Dupont analysis.

**UNIT III**

Fund Flow Statement - Statement of Changes in Working Capital - Computation of Fund from Operations - Workings for Computation of various sources and uses - Preparation of Fund Flow Statement - Cash Flow Statement Analysis- Computation of Cash from Operations Problems - Distinction between Fund Flow and Cash Flow Statement. Problems

**UNIT IV**

Cost Accounting - Meaning - Distinction between Financial Accounting and Cost Accounting - Cost Terminology: Cost, Cost Centre, Cost Unit - Elements of Cost - Cost Sheet – Problems. Budget, Budgeting, and Budgeting Control - Types of Budgets - Preparation of Flexible and fixed Budgets, master budget and Cash Budget - Problems -Zero Base Budgeting.

**UNIT V**

Marginal Costing - Definition - distinction between marginal costing and absorption costing - Break even point Analysis - Contribution, p/v Ratio, margin of safety - Decision making under marginal costing system-key factor analysis, make or buy decisions, export decision, sales mix decision-Problems

**References:**

1. Advanced Accountancy - R.L.Gupta and Radhaswamy
2. Management Accounting - Brown and Howard
3. Management Accounting - Khan and Jain
4. Management Accounting - S.N.Maheswari
5. Management Accounting - Antony and Recece
6. Management Accounting - J.Batty

Questions : 80% of the questions shall be problems  
20% of the questions shall be theory based.

## 1.5. QUANTITATIVE METHODS FOR MANAGEMENT

### UNIT I

Linear, Non-Linear functions – graphical representation of functions, Constants, Variables – notion of Mathematical models – concept of trade off – notion of constants – concept of Interest. Basic Concept of differentiation – integration – Optimization concepts – use of differentiation for optimization of business problem- Optimization

### UNIT II

Data Analysis – Uni-Variate – ungrouped and grouped data measures of central Tendencies, measures of dispersion – C V percentages (problem related to business applications). Bivariate – correlation and regression – problems related to business applications

### UNIT III

Probability – definitions – addition and multiplication Rules (only statements) – simple business application problems – probability distribution – expected value concept – theoretical probability distributions – Binomial, Poison and Normal – Simple problems applied to business.

### UNIT IV

Basic concept of index numbers – simple and weighted index numbers – concept of weights - types of index numbers – Business index number – CPT, WPI, Sensex, Nifty, Production Index, Time series – variations in Time Series for business forecasting.

### UNIT V

Hypothesis testing of Proportion and Mean – single and two tailed tests – errors in Hypothesis Testing – Measuring the power of Hypothesis test. Chi-Square Tests

### References :

1. Statistics for Management – Richard L Levin & Daid S Rubin
2. Statistical Methods – S P Gupta
3. Statistics for Business and Economics – R P Hoods – MacMillan India Limited
4. David M.Levine, Timothy C.Krehbiel and Mark L.Berenson  
“Business Statistics: A First Course” , Pearson Education Asia
5. Amir D. Aczel, Complete Business Statistics, 5th edition, Irwin McGraw-Hill.

Questions : 80% of the questions shall be problems  
20% of the questions shall be theory based.

## 1.6 CORPORATE COMMUNICATION

### Unit 1:

Communication basics – Business Communication – components – Types – formal communication network – Work team communication – variables – goal – conflict resolution – non – verbal communication – Cross cultural communication – Business meetings – Business Etiquette.

### Unit 2:

Understanding Corporate Communication – Employee Communication – Managing Government Relations – Writing for Media and Media Relations

### Unit 3:

Corporate Communication in Brand Promotion – Financial Communication – Crises Communication.

**Unit 4:**

Report writing: Characterizing & business reports – Types and forms & reports – Project proposals – collection of data – tables constitution – charts – writing the report – documenting the sources – proof reading.

**Unit 5:**

Business Presentation: Written and oral presentation – work – team presentation – Delivering the business presentation visual aids – slides – electronic presentation – hand-outs – delivering the presentation – career planning – preparing Resume – job applications – preparation for a job interview – employment interviews – follow-up.

**Suggested Readings:**

1. Scot Ober, Contemporary business communication, fifth edition, biztantra.
2. Lesiler & Flat lay, Basic Business communication. Tata Mc Graw Hill.

**1.7. COMPUTER APPLICATIONS IN MANAGEMENT USING SAP - PRACTICAL**

**Aim:** To introduce the concepts of information technology and their application in management decision making.

**Components of a Computer** - Hardware and Software – Operations Systems – Directories and File properties.

**MS OFFICE** – Introduction to **WORD, EXCEL** and **POWERPOINT**

**WORD** – Creating a new document with templates & Wizard – Creating own document – Opening/modifying a saved document – converting files to and from other document formats – Using keyboard short-cuts & mouse – Adding symbols & pictures to documents – header and footers – Finding and replacing text – spell check and Grammar check – Formatting text - paragraph formats - adjusting margins, line space – character space – Changing font type, size – Bullets and numbering – Tables – Adding, editing, deleting tables – Working within tables – Adding, deleting, modifying rows and columns – merging & splitting cells.

**EXCEL** – Working with worksheets – cells – Entering, editing, moving, copying, cutting, pasting, transforming data – Inserting and deleting of cells, rows & columns – Working with multiple worksheets – switching between worksheets – moving, copying, inserting & deleting worksheets – Using formulas for quick Calculations – Working & entering a Formula – Formatting a worksheet – Creating and editing charts – elements of an Excel Chart – Selecting data to a chart – Types of chart – chart wizard – Formatting chart elements – Editing a chart – Printing charts.

**POWERPOINT** – Creating new presentations – Auto content wizard – Using template – Blank presentation – Opening existing presentations – Adding, editing, deleting, copying, hiding slides – Presentations – Applying new design – Adding graphics – Using headers and footers – Animations text – Special effects to create transition slides – Controlling the transition speed – Adding sounds to slides – Using action buttons.

**TALLY** – Introduction and Installation, Required Hardware, Preparation for installation of Tally software, installation, Working in Tally: Opening new company, Safety of Accounts or Password, Characteristics, Making Ledger Accounts, Writing voucher, voucher entry, Making different types of vouchers, Correcting sundry debtors and sundry creditors accounts, Preparation of Trial Balance, Books of Accounts, Cash Book, Bank Books, Ledger Accounts, Group summary, Sales Register and Purchase Register, Journal Register, Statement of Accounts & Balance Sheet.

**ERP & SAP** : Introduction – Need for ERP – Advantages – Major ERP Packages – SAP: Features – ABAP: Logon to SAP Environment – ABAP Dictionary – Functions – Objects – Managing SAP Application

**Practicals:** Simple problems to be done in WORD, EXCEL and POWERPOINT using all the above mentioned topics.

**References:**

OFFICE 2000 Complete – BPB

Windows 98 Complete – BPB

Windows 98 6 in one by Jane Calabria and Dorothy Burke – PHI

Using Microsoft Office 2000 by Ed, Bott – PHI

Enterprise Resource planning (ERP): Text and case studies by Murthy, C S V, HPH

Teach yourself SAP in 24 hours by George Anderson; Danielle Larocca - Pearson Education

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**2.1 OPERATIONS MANAGEMENT**

**UNIT I** : Operations Management – Meaning – Importance – historical contributions – System view of OM - Operation strategy and competitiveness - Functions of OM – types of production systems

**UNIT II** : Product design and process selection – Evaluation and Selection of appropriate Production and Operations technology. Product Design and process selection. Types of layout – analysis and selection of layout – Product and / or Process layout, Cellular, Lean and Agile manufacturing systems – Computer Integrated Manufacturing Systems - Assembly line balancing.

**UNIT III** : Production planning and control – meaning – functions – aggregate planning – master production schedule (MPS) – Material requirement planning (MRP) – BOM – Capacity requirement planning (CRP) – Techniques – problems in MRP and CRP – an introduction to MRP II and ERP – Business Process Re-engineering - Total Productive Maintenance (TPM)

**UNIT IV** : Materials management – functions – material planning and budgeting – Value Analysis - purchase functions and procedure - inventory control – types of inventory – safety stock – order point – service level – inventory control systems – perpetual – periodic – JIT – KANBAN.

**UNIT V** : Total Quality Management Concept - Statistical Quality Control for Acceptance Sampling and Process Control – Concepts of O.C.C. Curve – Use of the O.C. Curve – Concept of Type I and Type II error – Quality movement – Quality circles — ISO Quality Certifications and types – Quality assurance – Six Sigma concept.

**References :**

1. Production and Operations Management – Everest E Adam & Ebert – PHI – publication forth edition.
2. Operations Management (Theory and Problems ) – Joseph G Monks – McGraw Hill Intl.
3. Production and Operations Management – S N Chary – TMH Publications
4. Production and Operations Management – Pannerselvam, PHI
5. Lee J. Krajewski and Larry P. Ritzman, “Operations Management: Process and value Chains”, 7th Edition, PHI, 2007
6. Hunawalla and Patil – production and Operations Management, Himalaya.
7. Modern Production and operations management – E.S Buffa.

8. Lee J. Krajewski and Larry P. Ritzman, “ Operations Management: Strategy and Analysis”, Addison Wesley.
9. Chase, Aquilano & Jacobs “Production and Operations Management”, Tata McGraw Hill.

Questions : 40% of the questions shall be problems  
60% of the questions shall be theory based.

## **2.2 MARKETING MANAGEMENT**

### **Unit I**

Marketing Concepts and Tasks, Defining and delivering customer value and satisfaction - Value chain - Delivery network, Marketing environment, Adapting marketing to new liberalised economy - Digitalisation, Customisation, Changing marketing practices, e-business - setting up websites; Marketing Information System, Strategic marketing planning and organization.

### **Unit II**

Buyer Behaviour, Market Segmentation and Targeting, Positioning and differentiation strategies, Product life cycle strategies, New product development, Product Mix and Product line decisions, Branding and Packaging, Price setting - objectives, factors and methods, Price adapting policies, Initiating and responding to price changes.

### **Unit III**

Marketing channel system - Functions and flows; Channel design, Channel management - Selection, Training, Motivation and evaluation of channel members; Channel dynamics - VMS, HMS, MMS; Market logistics decisions.

### **Unit IV**

Integrated marketing communication process and Mix; Advertising, Sales promotion and Public relation decisions. Direct marketing - Growth, Benefits and Channels; Telemarketing; Salesforce objectives, structure, size and compensation.

### **Unit V**

Identifying and analysing competitors, Designing competitive strategies for leaders, challengers, followers and nichers : Customer Relationship marketing - Customer database, Data warehousing and mining. Attracting and retaining customers, Customerism in India, Controlling of marketing efforts.  
Global Target market selection, standardization Vs adoption, Product, Pricing, Distribution and Promotional Policy.

### **References :**

1. Marketing Management - Philip Kotler - Pearson Education/PHI 12th Edition, 2006.
2. Marketing Management - Rajan Saxena - Tata McGraw Hill, 2002.
3. Marketing Management: Planning, Implementation and Control: Global Perspective Indian Context – VS Ramasamy & S. Namakumari - Macmillan India, 2007.
4. Marketing Management: A South Asian Perspective – Philip Kotler and Kevin Lane Kotler, Pearson Education, 11th Edition, 2007.
5. Basic Marketing - Perreault and McGarthy - Tata McGraw Hill, 2002.
6. Case and Simulations in Marketing - Ramphal and Gupta - Golgotia, Delhi.
7. Case Studies in Marketing - R.Srinivasan - PHI.

8. Marketing concepts and cases – Michael J Etzel, Bruce J Walker, William J Stanton and Ajay Pandit, TMH 13th Edition, New Delhi, 2007.
9. Marketing Management – S.Jayachandran - TMH, 2003.

## **2.3 FINANCIAL MANAGEMENT**

### **Subject Description :**

Financial Management emphasizes the functions of financial management explaining the investment, finance, dividend and working capital function along with the practical management problems.

### **Goals:**

To enable the students to learn the basic functions, principles and concepts of finance in management.

### **Objectives:**

On successful completion of the course the students should have:

To learn the various functions of financial management along with the application.

To learn capital budgeting and cost of capital.

To understand capital structure, dividend policy and working capital management.

### **UNIT I**

Objectives and functions of Financial Management - Role of Financial Management in the organisation - Risk-Return relationship- Time value of money concepts - Indian Financial system - Legal, Regulatory and tax framework. Sources of Long term finance - Features of Capital market development in India - Role of SEBI in Capital Issues.

### **UNIT II**

Capital Budgeting - methods of appraisal - Conflict in criteria for evaluation - Capital Rationing - Problems - Risk analysis in Capital Budgeting.

### **UNIT III**

Cost of Capital - Computation for each source of finance and weighted average cost of capital - EBIT -EPS Analysis - Operating Leverage - Financial Leverage - problems.

### **UNIT IV**

Capital Structure Theory - Net Income Approach - Net Operating Income Approach - MM Approach - Dividend Policy - Types of Dividend Policy - Dividend Policy and share valuation - CAPM.

### **UNIT V**

Working Capital Management - Definition and Objectives - Working Capital Policies - Factors affecting Working Capital requirements - Forecasting Working Capital requirements (problems) - Cash Management - Receivables Management and - Inventory Management - Working Capital Financing - Sources of Working Capital and Implications of various Committee Reports.

### **References :**

1. Richard A.Brealey, Stevart C.Myers, “Principles of Corporate Finance” McGraw Hill, New York.
2. James C.Van Horns, “Financial Management & Policy” Prentice Hall of India (P) Ltd., New Delhi.
3. John J.Hampton, “Financial Decision Making – Concepts, Problems and Cases” Prentice

Hall of India (P) Ltd., New Delhi (1994).

4. Prasanna Chandra, “Financial Management–Theory&Practice”, Tata McGraw Hill, New Delhi (1994).

5. B J Camsey, Engene F.Brigham, “Introduction to Financial Management”, The Gryden Press.

6. I.M.Pandey, “Financial Management”, Vikash Publishing, New Delhi.

## **2.4 HUMAN RESOURCE MANAGEMENT**

### **Unit I : Human Resource Function**

Human Resource Philosophy - Changing environments of HRM - Strategic human resource management - Using HRM to attain competitive advantage - Trends in HRM - Organisation of HR departments - Line and staff functions - Role of HR Managers.

### **Unit II : Recruitment & Placement**

Job analysis : Methods - IT and computerised skill inventory - Writing job specification - HR and the responsive organisation.

Recruitment and selection process : Employment planning and forecasting - Building employee commitment : Promotion from within - Sources, Developing and Using application forms - IT and recruiting on the internet.

Employee Testing & selection : Selection process, basic testing concepts, types of test, work samples & simulation, selection techniques, interview, common interviewing mistakes, Designing & conducting the effective interview, small business applications, computer aided interview.

### **Unit III : Training & Development**

Orientation & Training : Orienting the employees, the training process, need analysis, Training techniques, special purpose training, Training via the internet.

Developing Managers : Management Development - The responsive managers - On-the-job and off-the-job Development techniques using HR to build a responsive organisation. Management Developments and CD-Roms - Key factor for success.

Performance appraisal : Methods - Problem and solutions - MBO approach - The appraisal interviews - Performance appraisal in practice.

Managing careers : Career planning and development - Managing promotions and transfers.

### **Unit IV : Compensation & Managing Quality**

Establishing Pay plans : Basics of compensation - factors determining pay rate - Current trends in compensation - Job evaluation - pricing managerial and professional jobs - Computerised job evaluation.

Pay for performance and Financial incentives : Money and motivation - incentives for operations employees and executives - Organisation wide incentive plans - Practices in Indian organisations.

Benefits and services : Statutory benefits - non-statutory (voluntary) benefits - Insurance benefits - retirement benefits and other welfare measures to build employee commitment.

### **Unit V : Labour relations and employee security**

Industrial relation and collective bargaining : Trade unions - Collective bargaining - future of trade unionism. Discipline administration - grievances handling - managing dismissals and separation.

Labour Welfare : Importance & Implications of labour legislations - Employee health - Auditing HR functions, Future of HRM function.

**References:**

1. Gary Dessler, "Human Resource Management", Seventh edition, Prentice-Hall of India P.Ltd., Pearson.
2. H.John Bernardin & Joyee E.A.Russel, Human Resource Management - An experiential approach, 4th Edition, McGraw-Hill International Edition., 2007
3. David A. DeCenzo & Stephen P.Robbins, Personnel/Human Resource Management, Third edition, PHI/Pearson.
4. VSP Roa, Human Resource Management : Text and cases, First edition, Excel Books, New Delhi - 2000.
5. Dr. R.Venkatapathy & Assissi Menacheri, Industrial Relations & Labour Welfare, Adithya Publications, CBE, 2001.
6. Robert L.Gibson and Marianne H.Mitchell, Introduction to Counseling and Guidance, VI edition, PHI, 2005.

**2.5. QUANTITATIVE TECHNIQUES**

**AIM**

To enable the students to learn the techniques of operation Research and resources Management and their application in business management.

**UNIT I**

Mathematical Models – deterministic and probabilistic – simple business examples – OR and optimization models – Linear Programming – formulation – graphical solution –Dual of linear programming problem – Economic interpretation

**UNIT II**

Transportation model – Initial Basic Feasible solutions – optimum solution for non – degeneracy model – Trans-shipment Model – Assignment Model

**UNIT III**

Network Model – networking – CPM – critical path – Time estimates – critical path – crashing, Resource levelling, Resources planning. Waiting Line Model – Structure of model – M/M/1 for infinite population.

**UNIT IV**

Inventory Models – Deterministic – EOQ – EOQ with Price Breaks – Probabilistic Inventory Models - Probabilistic EOQ model

**UNIT V**

Simulation – types of simulation – Monte Carlo simulation – simulation problems.  
Decision Theory – Pay off tables – decision criteria – decision trees.

**References :**

1. Operations Research – An Introductions – Hamdy A Tata
2. Operations Research – Kanti Swarup, Gupta And Man Mohan
3. Operations Research – Dr. J.K. Sharma Macmillan Indian Ltd.
4. Operations Research – R. Panneerselvam, 2nd Edition, PHI, 2007
5. Operations Research, Concepts and cases – Fredrick S Hillier and Herald J Lieberman, 8th Edition, TMH, 2003
6. Hamdy A Taha, “An Introduction to Operations Research, Prentice Hall, Sixth edition, 2000

7. Ronald L. Rardin, “Optimization in Operations Research”, Pearson Education
  8. J. K. Sharma, “ Operations Research: Theory and Applications”, Macmillan , 1997
  9. U.K. Srivastava, G.V. Shenoy, S. C. Sharma, “ Quantitative Techniques for Managerial Decision”, Second Edition, Prentice Hall of India
- Questions : 80% of the questions shall be problems  
20% of the questions shall be theory based.

## **2.6 .RESEARCH METHODS FOR MANAGEMENT**

### **Subject Description :**

Research Methods of Management is emphasizing on the methodology of research and its application in managerial decision making, explaining hypothesis, meaning and types, sampling design along with the various parametric and non-parametric test.

### **Goals:**

To familiarize the students with methodology of research and its application in managerial decision making situations.

### **Objectives:**

On successful completion of the course the students should have:

Understood the scope and significance of research in business decisions. Studied and understood sampling techniques along with hypothesis testing. Understood various scaling techniques and measurement scales .

### **UNIT I**

Research - meaning - scope and significance - Types of research - Research Process - Characteristics of good research - Scientific method - Problems in research - Identifying research problem – concepts, constructs and theoretical framework.

### **UNIT II**

Hypothesis:- meaning - sources - Types - formulation Research design - Types - case study - features of good design - measurement - meaning - need Errors in measurement - Tests of sound measurement Techniques of measurement - scaling Techniques - meaning - Types of scales - scale construction techniques.

### **UNIT III**

Sampling design - meaning - concepts - steps in sampling - criteria for good sample design - Types of sample designs - Probability and non-probability samples. Data collection:- Types of data - sources - Tools for data collection methods of data collection - constructing questionnaire - Pilot study - case study - Data processing:- coding - editing - and tabulation of data - Data analysis.

### **UNIT IV**

Test of Significance:- Assumptions about parametric and non-parametric tests. Parametric Test - T test, F Test and Z test - Non Parametric Test - U Test, Kruskal Wallis, sign test. Multivariate analysis-factor, cluster, MDS, Discriminant analysis. (NO Problems). SPSS and its applications.

### **UNIT V**

Interpretation - meaning - Techniques of interpretation - Report writing:- Significance - Report writing:- Steps in report writing - Layout of report - Types of reports - Oral presentation - executive summary - mechanics of writing research report - Precautions for writing report - Norms for using Tables, charts and diagrams - Appendix:- norms for using Index and Bibliography.

**References:**

1. Rao K.V.Research methods for management and commerce - sterling
2. Zigmund, Business Research Methods
3. Donald R.Cooper and Pamela S.Schindler - Business Research Methods - Tata McGraw Hill, 2007
4. Naresh K Malhotra – Marketing Research: An Applied Orientation, Pearson Education, 4th Edition, 2004
5. Wilkinson Bhadarkar - Methodology and Techniques of Social Research - Himalaya.
6. Anderson etal - Assignment and Thesis writing.
7. Uma Sekaran, Research Methods for Business, Wiley Publications.

Note : 20% of the questions shall be problems

80% of the questions shall be theory based.

## **SEMESTER – III**

### **3.1 BUSINESS ETHICS AND GLOBAL BUSINESS ENVIRONMENT**

#### **Unit - I**

Business environment - The concept and significance - constituents of business environment - Business and society, Business & ethics - Social responsibility - Environmental Pollution and Control. Business and culture - Business and Government - Political system and its influence On business - Indian constitution - Directive Principles of State Policy.

#### **Unit - II**

Managing Ethics - Frame work of organizational ethic theories and sources, ethics across cultures, factors influencing business ethics, ethical decision making, ethical values and stakeholders, ethics and profit, Corporate governance Structure of boards, reforms in boards, compensation issues, ethical leadership for improved Corporate governance and better business education.

#### **Unit - III**

Global management Issues MNCs Politics and Environment Multinational corporations and Government relationship, Business in Politics, Managing environmental quality, Ethics & Profit in Business.

#### **Unit - IV**

Fiscal Policy - Central finances and New fiscal policy - Direct and indirect Tax structure, VAT,MODVAT - Service Tax problems and reforms - Expenditure Tax - Public debts & deficit financing.

#### **Unit - V**

Legal environment of business - Monopolies Restrictive Trade Practices Act. Foreign Exchange Management Act-1 Securities and Exchange Board of India Act - Customs & Central Excise Act- Central & State Sales Tax - Consumer Protection Act Patents Act - Competition Law.

#### **References:**

- Adhikari M - Economic Environment of management
1. Francis Cherunilam - Business Environment
  2. Pruti S. - Economic & Managerial Environment in India
  3. Shaikh Saleem – Business Environment, Pearson Education, 2006
  4. Davis & Keith William C. Frederik - Business and society
  5. Amarchand D - Government and Business
  6. Mankard - Business Economics, Mac Millan.
  7. A.N.Agarwal - Indian Economy - Wishwa Prakashan
  8. Steiner & Steiner - Business Government and Society, McGraw Hill, 2003.
  9. Kitson.A and Campbell.R - The Ethical Organisation, Palgrave, 2001

### **3.2 MANAGEMENT INFORMATION SYSTEM**

#### **Unit - I**

Foundations of Information Systems: A framework for business users - Roles of Information systems - System concepts - Organization as a system - Components of Information Systems - IS Activities - Types of IS.

#### **Unit - II**

IS for operations and decision making: Marketing IS, Manufacturing IS, Human Resource IS, Accounting IS and Financial IS - Transaction Processing Systems- Information Reporting System - Information for Strategic Advantage.

#### **Unit - III**

DSS and AI: DSS models and software: The decision making process - Structured, Semi Structured and Unstructured problems; what if analysis, Sensitivity analysis, Goal-seeking Analysis and Optimizing Analysis. Overview of AI, Neural Networks, Fuzzy Logic Systems, Genetic Algorithms - Expert Systems.

#### **Unit - IV**

Managing Information Technology: Managing Information Resources and technologies – IS architecture and management - Centralized, Decentralized and Distributed - EDI, Supply chain management & Global Information technology Management.

#### **Unit - V**

Security and Ethical Challenges: IS controls - facility control and procedural control - Risks to online operations - Denial of service, spoofing - Ethics for IS professional - Societal challenges of Information technology.

#### **References:**

1. James A O'Brien, "Management Information Systems", Tata McGraw Hill, Fourth Edition, 1999.
2. Effy Oz, "Management Information Systems", Vikas Publishing House, Third Edition, 2002.
3. Kenneth C Laudon and Jane P Laudon, "Management Information System", 9th Edition, PHI, New Delhi, 2006.
4. Waman S Jawadekar , "Management Information System Text and cases", Third Editions, Tata McGraw-Hill ,2007.
5. R.Srinivasan, "Strategic Management", IInd edition, Prentice Hall of India, New Delhi.
6. M.Senthil, "Management Information System", 2003.

### **3.3. AIRLINE AND AIRPORT OPERATIONS**

#### **Unit - I**

##### **INTRODUCTION**

History of Aviation- Development of Air transportation in India-Major players in Airline Industry-Swot analysis in Airline Industry-Market potential of Indian Airline Industry—Current challenges in Airline Industry-Completion in Airline Industry-IATA & ICAO

#### **Unit- II**

##### **AIRPORT MANAGEMENT**

Airport planning-Operational area and Terminal planning, design, and operation-Airport operations-Airport functions-Organization structure of Airline and Airports sectors-Airport authorities-Global and Indian scenario of Airport management – DGCA –AAI.

#### **Unit - III**

##### **AIRTRANSPORT SERVICES**

International trends-Emerging Indian scenario-PPP- Public Private Participation in Indian Airports-Environmental regulations-Private participation in International developments-Environment regulations-Regulatory issues-Meteorological services for Aviation-Airport fees, rates, and charges

#### **Unit - IV**

##### **AIRLINE OPERATIONS**

Airline Terminal Management-Flight Information Counter/Reservation and Ticketing-Check In/Issue of Boarding pass-Customs and Immigration formalites-Co-ordination-Security Clearance-Baggage and -Handling of Unaccompanied minors and Disabled Passengers-Handling of Stretcher Passengers and Human Remains-Handling of CIP,VIP & VVIP-Co-ordination of Supporting Agencies /Departments.

#### **Unit - V**

##### **LOGISTICS AND AIR CARGO MANAGEMENT**

Concept of Logistics- Role of Ware Housing-trend in material handling-Global Supply Chain-Quality concept and Total Quality Management-improving Logistic performance-Air Cargo Concept- Cargo Handling-Booking of Perishable Cargo and Live Animals- Industry Relation-Type of Air Cargo-Air Cargo Tariff, ratios and Charges-Airway Bill, Function, Purpose, Validation.

**References:**

1. Graham.A-Managing Airport an International Perspective –Butterworth Heinemann, Oxford-2001
2. Wells.A-Airport Planning and Management, 4th Edition-McGraw-hill, London-2000.
3. Doganis.R.-The Airport Business-Routledge, London-1992
4. Alexander T.Well, Seth Young –Principles of Airport Management-McGraw Hill 2003
5. P.S.Senguttuvan –Fundamentals of Airport Transport Management – McGraw Hill 2003
6. P.S.Senguttuvan –Principles of Airport Economics-Excel Books-2007
7. Richard De Neufville – Airport Systems: Planning, Design, and Management.-McGraw-Hill, London- 2007
8. Kent Gouiden- Global Logistics Management –Wiley Black Well
9. Lambert –Strategic Logistic Management – Academic Intl Publishers
10. Alan Ruston & John Oxley, Hand book of Logistics & Distribution –Kogan Page
11. Paul R.Murphy,JR and Donal & F.Wood-Contemporary Logistics –Prentie Hall.9<sup>th</sup> Edn.2008.

### **3.4 STRATEGIC AIRPORT PLANNING AND MARKETING**

#### **Unit – I**

Introduction – Growth of air transport, Airport organization and associations, Classification of airports airfield components, Air traffic Zones and approach areas. Context of Airport system planning – Development of Airport Planning process – Ultimate consumers – Airline decision – Other Airport operations.

#### **Unit – II**

AIRPORT CHARACTERISTICS RELATED TO AIRPORT DESIGN -Components Size, turning radius, speed, airport characteristics. CAPACITY AND DELAY: Factors affecting capacity, determination of runway capacity related to delay, gate capacity, and taxiway capacity.

#### **Unit - III**

AIRPORT PLANNING AND SURVEYS: Runway length and width, sight distances, longitudinal and transverse, runway intersections, taxiways, clearances, aprons, numbering, holding apron. PLANNING AND DESIGN OF THE TERMINAL AREA: Operational concepts, space relationships and area requirements, noise control, vehicular traffic and parking at airports. AIR TRAFFIC CONTROL AND AIDS: Runways and taxiways markings, day & night landing aids, airport lighting and other associated aids.

#### **Unit – IV**

The role and scope of activity of the Airport Enterprise – The economic impact on countries and regions – the main governance patterns in the airport business – The International path of evolution in the air port business – Airport transport value chain – Air enterprises – two primary actors in the air transport value chain – Skipping peripheral positions in the value chain. Rise of airport marketing for the aviation related business – airports market positioning – primary hub – secondary hub – regional airport – all cargo airport – airport positioning criteria – role on the market – identification of partners for airport development – first quantum leap of the airport enterprises – low cost airports – role of helicopters as a complimentary feeder and defender of hub airports – Airport revenue management – Airport alliances – management contract

## **Unit – V**

The Development of the Non Aviation – Related value Proposition. Evolution of traditional Airport – Evolutionary patterns for airport enterprises – Commercial Airport Philosophy – tourist and conference service – logistic services – property management – consulting services – BAA and the non aviation business – best airport in the world: The case of Singapore Airport – Role and meaning of loyalty for a service company – Bench marking airline experience – Provider – Customer relational link – benefits from ALPS implementation of ALPS

Airport marketing Planning – London city Airport: A best – in – class provider in the Airport business – The Airport industry and An International Picture - Air port business in 2002- US & European performance in 2002 – Asia pacific performance in 2002 – Middle east/Africa in 2002 – Airport business in 2003 – 2005 outlook for the Air transport industry.

### **Reference Books:**

1. Aviation Safety Programs A Management Hand Book-Richard H.Wood – Jeppesen Sanderson Inc.
2. Strategic Management –Gregory G.Dess and Alex Miller –McGraw Hill
3. Strategic Management: An Integrative Perspective-A.C.Hax and NS-Majifu, Prentice Hall.
4. Marketing Management –Philip Kotler – Pearson Education/PHI
5. Marketing Management – RAJAN SAXENA –Tata McGraw Hill
6. International Marketing – Philip R.Cateora-Irwin McGraw Hill, 9th Edition.

### **Text Book:**

1. Strategic Airport Planning –Robert E.Caves & Geoffrey D.Gosling-Elsevier Science Ltd
2. Airport Marketing –David Jarach –Ashgate Publishing Limited

### **3.5 AIR TRAFFIC CONTROL**

#### **Unit - I**

Human factors in Air traffic Control –Temporal progress in Human Factors in ATC –The circumstances – Background Details – The Human Factors –Preventive measures. Nature of Human Error: Shell model –Modeling Error –Engineering ,Interactive Information Processing – Levels of Behavior – Skill based, Rule Based, Knowledge based – Violations – Decision Making – Action – nature of Intended action – Managing Human error – Individual blame or systemic causal factors.

#### **Unit - II**

Information processing – Sensation and sensory memory – Perception – Detection – Attention – Recognition – Decision Making and response selection – the visual system – visual sensation, perception, cognition, imagery – visualization in air traffic control. Auditory cognition – Spatial Orientation – Situation awareness – Mental Models – decision making and Judgment – Cognitive aspects – attitudinal behavioral aspects – selection and training

#### **Unit - III**

Introduction – Communication distortion, expectancy, Noise and masking – Interruption – Listening – Selecting – Attending – Understanding – Non-verbal communication – Touch – Body Language – Communication in the ATC environment – communicating within groups – to solve problems – gate keeping – mediating – Criticism – Leadership – Team Building – Stress reduction – Self development and learning – Communication style – teams and Team work – Teams – Conformity – Compliance – Group decision making – group polarization – group think – cultural influences – Team roles – Working with other teams.

#### **Unit - IV**

Procedures – Circumstances – Background details – The Human factors – preventive measures – Checklists – Software display. Human machine systems – operational complexity versus Functional capability – Radar service – Procedural service – Future changes in the controlling environment – navigation: GNSS and free flight – surveillance: ADS and ADS-B – Other Human Factor issues in the CNS environment – Design and development – training – licensing

#### **Unit - V**

Stress – causes of stress – noise and vibration – stress recognition – Stress management – Estimating stress levels –Changing Attitudes and behavior – Post traumatic stress Disorder – Sleep and fatigue – Circadian Rhythms – Cardiovascular and respiratory systems – The digestive system and the kidneys – Mental performance – psychological problems – performance changes – safety management – A case study – The Mount Erebus Disaster – Individual Performance factors – task factors – organizational culture – ATS organizations.

**Reference Book:**

1. Investigating Human Error –Barry Strauch –Ashgate Publishing Limited Staffing the ATM System –Hinnerk Eibfeldt, Mike C.Heil and Dana Broach –Ashgate Publishing Limited.
2. Innovation and Consolidation in Aviation – GrahamEdkins and PeterPfister – Ashgate Publishing Ltd.

**Text Book:**

Air Traffic Control: Human Performance Factors –Anne R.Issac with Bert Ruitenber-Ashgate Publishing Ltd.

### **3.6 AIRCRAFT MAINTENANCE MANAGEMENT**

#### **Unit –I**

Maintenance: Role of the Engineer & Mechanic – Two Types of Maintenance-1. Reliability 2. Redesign – Failure Rate Patterns – Establishing a Maintenance Program. Development of Maintenance Programs: Introduction – Maintenance steering Group (MSG) approach – Process & Tasks – Oriented Maintenance – Maintenance Program Documents – Maintenance Intervals defined – Changing Basic Maintenance Intervals. Goals and Objectives of Maintenance – Program Content – Discussion of the five objectives. Aviation Industry Certification Requirements – Introduction – Aircraft Certification Delivery Inspection – Operator Certification – Certification of Personnel – Aviation Industry Interaction.

#### **Unit –II**

Documentation for Maintenance: Types of Documentation – Manufacturer’s Documentation – Regulatory Documentation – Airline Generated Documentation – ATA Document Standards – Summary of FAA Requirements – Additional Maintenance Program Requirements. Maintenance and Engineering Organization: M & E Organizational Chart – General Groupings – Manager Level Functions: Technical Services Directorate – Aircraft Maintenance Directorate – Overhaul Shops Directorate – Material Directorate – Evaluation Directorate. Organizational Structure and the TPPM. Technical Services: Engineering – Introduction – Makeup of Engineering – Mechanics and Engineers – Engineering Department Functions – Engineering Order Preparation.

#### **Unit – III**

Production Planning and Control: Introduction – Forecasting – Production Planning & Control – Feedback for Planning – Organization of PP & C. Technical Publications: Introduction – Functions of Technical Publications – Airline Libraries – Control of Publications – Document Distribution. Technical Training: Introduction – Organization – Training of Aviation Maintenance – Maintenance Resources Management – Airframe Manufacturer’s Training Courses – Other Airline Training Courses. Computer Support: What is a computer – Airline uses of Computers – Computer Program Modules – Selecting a computer System.

#### **Unit - IV**

Line Maintenance ( On – Aircraft) – Make up of Line Maintenance – Functions that Control Maintenance – Maintenance Control Centre Responsibilities – Line Maintenance Operations – General – Aircraft Log Book – Ramp and Terminal Operations – Other Line Maintenance Activities – Line Station Activities – Maintenance Crew Skill Requirements – Morning Meeting. Hanger Maintenance (On –Aircraft) – Introduction – Organization of Hanger Maintenance – Maintenance Support Shops – Ground Support Equipment – Hangar Maintenance Activity. Maintenance Overhaul Shops (off – Aircraft): Organization of Overhaul Shops – Types of Shops – Operation of Overhaul Shops – Shop Data Collection. Material support: Organization and Function of Material – Material Directorate – M & E Support: Organization and Function of Material – Material Directorate – M & E Support Functions of Material – Other Material Functions.

**Unit - V**

Quality Assurance: Requirement for Quality Assurance – Quality Audits – ISO 9000 Quality Standard – Technical Records – Other Functions of QA. Quality Control: Introduction – Quality Control Organization – FAA and JAA Differences – QC Inspector Qualifications – Basic Inspection Policies. Reliability: Introduction – Types of Reliability – A Definition of Reliability – A Reliability Program – Administration and Management of the Reliability Program. Maintenance Safety: Industrial Safety – Safety Regulations – Maintenance Safety Program – General Responsibilities for Safety – General Safety Rules – Accident and Injury Reporting.

**Text Book:**

1. Aviation Maintenance Management – Harry A. Kinnison – McGraw Hill

**Reference Books:**

1. Risk Management and Error Reduction in Aviation Maintenance – Manoj S. Patankar and James C. Taylor – Ashgate Publishing Ltd.
2. Managing Maintenance Error – James Reason and Alan Hobbs - Ashgate Publishing Ltd.

## **4.1 STRATEGIC MANAGEMENT: INDIAN GLOBAL CONTEX**

### **Unit - I**

Corporate Strategic Planning - Mission - Vision of the firm - Development, maintenance and the role of leader - Hierarchical levels of planning - Strategic planning process- Strategic management Practice in India. Competitive advantage of Nations and its implication on Indian Business.

### **Unit - II**

Environment Analysis & Internal Analysis of Firm: General environment scanning, competitive & environment analysis - to identify opportunities & threat - Assessing internal environment through functional approach and value chain -identifying critical success factors - to identify the strength & weakness - SWOT audit – core competence - Stockholders' expectations, Scenario-planning - industry analysis.

### **Unit - III**

Strategy Formation Generic strategies - Grand strategies - Strategies of leading Indian companies - The role of diversification - limits - means and forms. Strategic management for small organisations, nonprofits organisations and large multi product and multiple market organisations.

### **Unit - IV**

Tools of Strategy Planning and evaluation :Competitive cost dynamics - experience curve - BCG approach - cash flow implication -IA-BSmatrix - A.D.Littles Life-cycle approach to strategic planning - Business portfolio balancing -Assessment of economic contribution of strategy - Strategic funds programming. Strategy implication & Control : Various approaches to implementation of strategy - Matching organisation structure with strategy - 7S model - Strategic control process - Du Pont's control model and other Quantitative and Qualitative tools - Balanced score card - M.Porter's approach for Globalisation - Future of Strategic Management.

### **References:**

1. Pearce & Robinson, Strategic Management, All Indian Travellers N D.
2. A.C.Hax and NS, Strategic Management: An Integrative Perspective, Majifu Prentice Hall.
3. Michael Porter, Competitive strategies.
4. John A Pearce II and Richard B Robinson, “Strategic Management: Formulation, Implementation and Control”, 9th Edition, TMH, 2007
5. Michael Porter, Competitive Advantage of Nations.
6. Samul C. Certo and J.Paul Peter, Strategic Management, Second Edn. Concepts & Application, McGraw Hill.
7. Gregory G.Dess and Alex Miller, Strategic Management, McGraw Hill.
8. Gerry Johnson & Kevan scholes, Exploring Corporate Strategy: Text & Cases, Prentice Hall India.
9. Jauch.L., Rajive Gupta & William.F.Glueck, Business Policy and Strategic Management, Frank Bros&Co., 2003.
10. Fred R.David, Strategic Management Concepts & Cases, Pearson, 2003.
11. R.Srinivasan, Strategic Management, II edition, Prentice Hall of India, New Delhi

## **4.2. AIRLINE MARKETING AND STRATEGIC AIRLINE ALLIANCES**

### **Unit – I**

Market For Air transport Service-Definition-Marketing Mix- stages in the application of Marketing Principles of Airline Management – successful Airlines – definition of market for Air Transport Services – what business are we in –who is the customer –definitions –apparent and true needs – Industrial Buying Behavior –customer business Air Travel market –leisure air travel market – Air Freight Market – market segmentation – concept- segmentation variables in the air passenger market-customer requirements-demographics and psychographics-the leisure segment of demand – air freight market-differences between the passenger and air freight markets.

Marketing Strategy: PESTE analysis : political factors – economic factors – social factors – technological factors – environmental factors – introduction of Airline Business and Marketing Strategies – Porters Five Forces and their application to the Airline Industry – strategic families – differentiation airlines – the future – focus strategies – Airline Business and marketing strategies – common mistakes

### **Unit - II**

Product Analysis-What is product- theory of product analysis and its application to the Airline Industry – fleet and schedules – related product features – customer service – related product features – controlling product quality – introduction of Pricing and revenue management – building blocks in airline pricing policy – uniform and differential pricing – the structures of air freight pricing-Distribution Of Product And Brand Relationship-Distribution channel strategies – The Travel Agency Distribution system – Global Distribution System (GDS) –Distribution Channels in the Air Freight market – Brands and Commodities – Brand –Building in the Airline Industry – Brand Strategies

### **Unit - III**

Promotion Marketing-Fundamentals of relationship marketing – components of a relationship marketing strategy – frequent flyer programmers –the anatomy of a sale – sales planning – marketing communication techniques – airline advertising – selling in the air freight market – glossary of aviation terms and marketing terms.

### **Unit –IV**

The regulatory framework of Air Transport- Economic characteristics of the Airline Industry- Benefits of scale, scope and density in Air Transport-Types of Alliances between Airlines- Current Airline Alliance group-Cases of failed Airline Alliances-A Historical glimpse at Alliancing objectives-Reasons for Airlines building Alliances-Objectives of Alliances-Introduction- Marketing-driven objectives for alliances-Turbulence in marketing channels- Changes to airline marketing-Determinates of alliance image-Benefit challenges and cost of alliance brand association-Marketing and information. Performance measurement in airlines-

Measuring the performance impact of alliance-Time continuum in performance assessment-Traffic and revenue enhancement-Cost-Productivity-Profitability.

### **Unit - V**

Introduction –Sources of financial benefits –Labour cost reduction –Cost reduction in sourcing – marking financial benefits come true- Airline views on financial benefits –Traffic increase-revenue enhancement- Cost reduction-Profit improvement. The structure of alliance groups- The airline alliance group as a hybrid organization-The airline alliance group as an industrial network. Airline alliance groups as ‘multinational corporations’ - The problem of local rationales.

Introduction- Success drivers in airline business- Premises and objectives – Finding suitable partners – governance structure- degree of integration and trust- Organization’s commitment- Ensuring flow of information- Performance evaluation-Managing cultural differences- In conclusion. Scenarios for the future- The internal dynamics of alliancing- a look into the future of airline alliance groups.

### **Reference Book:**

1. Marketing Management – Philip Kotler-Pearson Education
2. Marketing Management –Ramaswamy & Namakumari –MacMillan
3. Global Marketing Management –Warren J.Keegan –P.H.I
4. Strategic Management –An Integrated Approach –Hill Jones –(Dreamech Bictantia)
5. Strategic Management Concept & Cases –Thomson & Strickland –Tata McGraw Hill
6. Cases in Strategic Management –S.B.Budhiraja & M.B.Athreya –Tata McGraw Hill.

### **Text Book:**

1. Airline Marketing and Management-Stephen Shaw – Ashgate Publishing Limited
2. Managing Strategic Airline Alliances-Birgit Kleymann & Hannu Seristo- Ashgate Publishing Limited

### **4.3 AVIATION SAFETY AND SECURITY**

#### **Unit - I**

A National security asset: importance of Air transportation – Airways – Development of the Aviation industry – Deregulation – Consequences of 9/11 to the industry – Emergency Funding – Protecting Public Air transportation. Hijacking – Security Measures – International Prospective – Trend begins – Aviation regulations – Airport security – New Carrier rules – New Airport Operator rules – Resistance Fades – Public Law 93 – 366 – threat warnings – Presidents Commission – Aviation Security Improvement Act of 1990 – Civil Aviation Security – research and Development – Lot of Talk: Crimes against Humanity – Convention – Tokyo – Hijacking , Montreal- Bonn Agreement – Diplomatic Conference on Air Law – Ministerial Conference on Terrorism – Financing of Terrorism – United Nations – ICAO/ECAC

#### **Unit - II**

Aircraft as Missiles: Early Hijackings – Terrorist Hijackings Spread – Initial Public response – Cockpit Doors – Profile of a Hijacker – Sky Marshal Program/Federal Air Marshal Program – History of Significant Air hijackings since 1972.The Roots remain: Introduction – Causes of Terrorism – Middle East – Rival Claims – Palestinian Liberation Organization – Abu Nidal – Hamas – Iranian Support of Terrorism – Hezbollah – Afghanistan: Osama Bin Laden – Europe – Japan – Peru – Russia – US – Domestic Terrorism – Nuclear Terrorism. The Best Defense: Introduction – Counter terrorist Units – Enforcement – central, Defense Intelligence Agency.

#### **Unit - III**

Screening: The last line of Defense – Introduction – Facilities – Screening check Point Augmentation – Law enforcement Officers at the gate – Flexible Law enforcement response Program – Public and Private Security Interface. Airborne Aircraft Security. Increased Supervision: Introduction – Criminal Guards – Ergonomic Solutions – potential Operator concerns – measuring operator Performance – The public tolerate the intrusion – Introduction – Metal detectors – Selecting a metal detector – Hand Held Body Scanners – X-ray inspection units – Passive and active metal detectors – Wave imaging – Selecting an X- Ray unit – Sizes – Film and Laptops – Details of X-ray unit – US standard for radiation exposure – New computer software – Trace – Detection technology – Tangents – conclusion.

#### **Unit - IV**

A Loose End : Introduction – Cargo Carrier responsibility – Air cargo security – Suicides – Baggage Tags – Passenger/ Baggage reconciliation – Airport lockers – Container hardening – Blast containment versus blast management – Airmail security – Indirect air carriers – known and unknown shipper – Vacuum chambers – Inspection of cargo – International Air cargo standards – Irelands air Cargo Security Program – TSA inspection of Air port – Conclusion. A slippery slope: Introduction – Fourth Amendment – Administrative search exception – Balancing Approach – Less intrusive alternatives – Stop and frisk exceptions – Individual stop and frisk search – Selective class stop and frisk search – Consent exception – Fourth amendment requirements – reasonableness – probable cause – Exclusionary rules – Police participation – Non- Violent threats – Passenger’s right to terminate a search – Alternate view point – the war on drugs – New law and technologies – Conclusion . Foreign Airport Security: Introduction –

ground Security – American assessments – diversion airports – Aviation safety assessment program – Legal Remedies – Profiling – Bomb sniffing dogs – Conclusion.

### **Unit - V**

Technological Improvements: Some intrusive and some not: Introduction – Core commission – Micro wave Holographic Imaging – Body orifice security scanner – Flight Vu™ Aircraft data scanner – New Generation of video security systems – Bio simmer™ quadruple resonance device – Intelliscan™ - 12000 Metal Detector-Biometric systems - FACEIT™ Access controls – Imaging Technologies – Conclusion. The Foundations of Security: Introduction – Airport/Runway incursions – Passenger interference – Conventional weapons – explosives – Nuclear weapons – Biological weapons – Conclusions. Another Foundation: Introduction – Access control – exterior alarm sensors – Control room – no power/ security – media intrusion – computer security – conclusion.

### **Text Book:**

1. Aviation and Airport Security – Kathleen M. Sweet – Pearson Education Inc.

### **Reference Books:**

1. Aviation in Crisis – Ruwantissa I.R.Abeyrante-Ashgate Publishing Ltd.
2. Aviation Safety Programs-Richard H.Wood –Jeppesen Sanderson Inc.

## **4.4. AVIATION LEGAL ENVIRONMENT**

### **Unit - I**

DGCA-Introduction to Directorate General of Civil Aviation-DGCA functions-DGCA Organization-DGCA as Regulatory Authority

### **Unit – II**

**REGULATIONS**-Aircraft Act 1934- The Aircraft Rules 1937

### **Unit - III**

**NATIONAL LEGISLATION** -The Air corporations Act, 1953 (27 of 1953)

- The Air Corporations (Transfer of Undertakings and Repeal) Ordinance, 1994(4 of 1994)
- The Air Corporations (Transfer of Undertakings and Repeal) Act, 1994 (13 of 1994)
- The International Airports Authority of India act, 1971 (43 of 1971)
- The National Airports Authority of India, 1985 (64 of 1985)
- The Airports Authority of India Act 1994 (55 of 1994)
- The Carriage by Air Act, 1972 (69 of 1972)
- The Tokyo Convention Act, 1975 (20 of 1975)
- The Anti-hijacking Act, 1982 (65 of 1975)
- The suppression of unlawful acts against safety of Civil Aviation Act, 1982 (66 of 1982)

### **Unit - IV**

#### **CIVIL AVIATION REQUIREMENTS (CAR)**

- Section 1-General
- Section 2-Airworthiness
- Section 3-Air Transport
- Section 4-Aerodrome standards and Air Traffic Services
- Section 5-Air Safety
- Section 6-Design standards and type certification
- Section 7-Flight crew standards, training and licensing
- Section 8-Aircraft operations

### **Unit- V**

#### **INTERNATIONAL CONVENTIONS: The Chicago conventions, 1944**

- The International Air Services Transit Agreement, 1944
- The International Air Transport Agreement, 1944
- The Warsaw Conventions, 1920
- The Geneva Convention, 1948
- The Rome Convention, 1952
- The Tokyo Convention, 1963

**References:** Aircraft Manual, C.A.R.Sec.II

## **4.5. AVIATION RESOURCE MANAGEMENT**

### **Unit – I**

#### **CREW RESOURCES MANAGEMENT:**

The role of crew resources management – The trouble with culture – Creating and implementing human factors' safety culture – human assessment – traditional flight crew and CRM training in general aviation – crew concepts in the air ambulance services.

### **Unit- II**

#### **THE AIRCRAFT CABIN:**

Safety issues in cabin – cabin crew communication – service, teamwork and flight safety – flight attendants' job performances and job satisfaction.

### **Unit – III**

#### **FATIGUE AND STRESS:**

Fatigue management in aviation – Fatigue in air activity – Stress management – the physiological factor

**Unit – IV**

**SELECTION AND TRAINING:**

Job requirements of Airline Pilots – Pilot selection process – Personality test for traffic controllers – training of pilots and crew members – the link between human factors and organizational learning.

**Unit – V**

**AVIATION INFORMATION AND MANAGEMENT:**

Structure of aviation operational information, management of aviation operational information – User innovation in Aviation operational information – Future of Aviation operational information

**References:**

1. Brain Mc Allister, Crew Resource Management ,Air life
2. Jensen, Pilot Judgement & Crew Resource Management ,N A
3. Thomas L Seamster, Aviation Information Management – From Documents Data, Ashgate
4. Thomas L Seamster & Barbara G Kanki ,Aviation Information Management, Ashgate
5. Eduardo Sales, Katherine A Wison ,Crew Resource Management, Ashgate.
6. Frank H Hawkins, Human Factors in Flight Ashgate
7. Mary Edwards & Elwyn Edwards, The Aircraft Cabin –Managing Human Factors , Ashgate
8. Harry W Orlady & Linda M Orlady, Human Factors in Multi Crew Flight Operation Ashgate