

# UNIVERSITY OF MUMBAI



Modified Revised Syllabus  
of the  
MS Degree Course  
(Semester III and IV)

(With effect from the academic year 2009 2010)

## Masters in Management Studies (MMS) – Semester IV

### Modifications in the Revised Syllabus

#### 4.1 Management Control System

Understanding Strategies Perspective of Management Control Systems

Basic concepts, Boundaries of Management control goals. The Concept of Corporate and Business Unit Strategies –

##### 1. Financial Goal Setting

EVA, Free Cash Flow market Gap, RONW, P/F, EPS and their Inter-relationship, ROI and Sensitivity Analysis

Organization Hierarchies and behavior

Goal Congruence, Information Factors that influence

Goal Congruence, Types of Organization and the Formal Control system, Function of Controller

##### 2. Responsibility Centers

Responsibility Centre, Revenue, Expenses and Investment Centers, Administrative Support and R and D Centers, Responsibility Budgeting

##### 3. Profit Centers

General Consideration, Concept, Identification and Creation, Matrix Structure, Profit Centers for Control and Decentralization

##### 4. Transfer Pricing

Objectives, Cost, Market and Margin based Methods, Pricing Corporate Services, Administration of TPs

##### 5. Measuring and Controlling Profits and Assets

AVA, Free Cash Flow, ROI and Residual Income Measuring Assets Employed, Alternatives for Managerial Performance Management

##### 6. Performance Measurement and Control

Information for performance control, Interactive Control, Balance Scorecard

##### 7. MCS in Service and Non Profit Organizations

Service Organization in General, Professional and Non-Profit Organizations

##### 8. Summing up

Controls for Differentiated Strategies, Top Management Styles, Summing up

##### 9. Audit

Efficiency Audit and Management Audit

**Case Study:** Westport Electric Company  
**Case Study:** North Country Auto or Any Other Similar Case  
**Case Study:** Birch Paper Company  
**Case Study:** Quality Metal Service  
**Case Study:** General Electric B

### **Suggested Readings**

1. Management Control systems by Rober Antony and Vijay Govindrajan (Tata McGraw Hill)
2. Management Control systems Dr. R.S. Aurora and Prof S.R. Kale (Jaico Publishing House)
3. Each Session of 90 Minute duration. For Quantitative topics, basic application knowledge is required but advanced techniques are not expected to be covered.
4. Emphasis should be covering the subject of Management Control as "aProcess" (and not as Techniques)
5. Due attention would be given to behavioural aspects of all the topics.

## **4.2 Business Ethics and Corporate Governance**

**100 Marks**

### **Course Content:**

1. Evaluation of through ethics n business – Culture and ethics – Overview of Ethics – overview of ethics Value system, Attitude, belief, A life patterns- Social Economics values and responsibility – trusteeship Management – Gandhi an Philosophy of wealth management Ethics and Indian management Basic Framework of Normative ethics Ethics and decision – making, social responsibility of business- Ethical aspects of corporate policy, morality and rationally in Foal Organization – Moral Relationship between individual and Organizations.

2. Relationship between ethics and Corporation Excellence – Approaches for Developing Various Orientation towards Ethical business Behavior
3. Corporate Governance – including suggestions of the Adrian Cadbury report, the Kumarmangalam report and their ethical ramifications
4. Ethics in International scenario – focusing on the unique nature of ethical dilemmas in a cross – cultural set up, guidelines for resolving and examples of corporate transgressions as well as corporate courage and ingenuity
5. Moral Evolution of the firm --: dealing with the stages of Ethical growth and Organizations and categorization of Indian firms- national corporate at various stages of growth

**Reference Text:**

1. Ethics of Management by Hosmer
2. Ethics of Management by Chakraborty
3. Ethics by Chandra Sekhar
4. What is Ethical in Ethics by John Henderson

**4.3 Entrepreneurship Management**

100 Marks

**Course Content :**

(A) Entrepreneurial Perspective:

Concept of Entrepreneur, Entrepreneurship and Enterprise; advantages Entrepreneur

- 1) Nature and Development of Entrepreneurship; Gender issues in Entrepreneurship
- 2) The dynamic role of Small Business /Industry in Economic Development
- 3) Personality of an Entrepreneur / Entrepreneur
- 4) Innovation and Entrepreneurship

(B) The Entrepreneurial Environment

- 1) Policy Perspectives in India to promote Entrepreneurship
- 2) Analysis of Business Opportunities in different sectors of economy at National and Global levels
- 3) Quick-start Routes to establish an Enterprises (Franchising, Ancillarising & Acquisitioning)
- 4) Support Organizations for an Entrepreneur and their Role
- 5) Legal framework for starting a Business /Industry in India

(C) The Enterprise Launching

Product / Project Identification

Developing a Project Report /Business Plan

Business Financing including venture Capital Finance

Managing early growth of a Business, Incubation Program

New Venture expansion – strategies and issues

**Reference Text:**

1. beyond Entrepreneurship- By James C. Collins, William C. Lazier
2. Entrepreneurship Management- By P.N. Singh, By J.C. Saboo .
3. Dynamics of Entrepreneurial – By Vasant Desai
4. Entrepreneurship Development in India – By Bishwanath Ghosh
5. Literature Published by Support Institutions viz.  
i) SIICOM, ii) SIDBI, iii) MSSIDC, iv) NSIC

**4.4 Services Management**

**10.0 Marks**

**Course Content:**

1. Introduction – Nature of services
2. Market positioning
3. Service delivery system
4. New service development
5. Services marketing mix decisions
6. Managing demand, capacity and service assets
7. Service processes-managing service encounter
8. Customer satisfaction and service quality
9. Customer complaints and service recovery
10. Managing service profit chain
11. Managing customer relationships
12. Managing people in service organizations

**Reference Text:**

1. Zeithaml, V.M.J. Bitner, and D. Gremler (2006) Services Marketing, 4<sup>th</sup> Ed. McGraw Hill
2. Lovelock, C.P. Patterson and R. Walker (2004) Services Marketing : An Asia-Pacific and Australian Perspective, 3<sup>rd</sup> Ed. Pearson Education Australia

**4.5 Environment Management**

100 Marks

**Course Content :**

1. Significance of environment management – Broad outline of national Environment - Policy Definition of Environment with particular reference to management
2. Environmental issues relevant to India
3. Present status of Environment Management
4. Major Issues Scope of Environment Management, Role and Functions of the government as a planning, organizing, directing, implementing and controlling agency, Managerial aspects involved in Environment management
5. Environment Quality Management- Overview of the role and responsibility of the industries
6. Total Quality Environmental Management, ISO 14000 EMS certification.
7. Major Legislation like air (P & C.P.) Act, Water (P & C.P.) Act, Environment Protection Act 1986, Wild life Protection Act etc.

**Reference Text:**

1. Krishnamoorthy : Environmental Management (Prentice Hall India)
2. Vijay S. Chitris : Changing face of the plant and Environmental Law (Snow White)
3. Tietenberg : Environmental Management Explained (Excel)
4. G.N. Pandey: Environment Management (Vikas)
5. Y.K Saxena & N.K. Oberoi: Environment Explained (Excel)
6. N.K. Oberoi: Environmental Management (Excel Books)

**Electives****4.6 Productivity Techniques****100 Marks****Course Content :**

1. Concept of Productivity – application in manufacturing and service industries, application in different functional areas
2. Measurement of Productivity – partial, Multi factor and Total Factor Models, Sumath's Total Productivity Model
3. Approach to Productivity Improvement – Classic ILO approach, Imai's KAIZEN Approach elimination of 3 M's (Muda, Mura, Muri)
4. Value Analysis and Value engineering – Functional Analysis – Brain Storming – Evaluation and Implementation Phases, Practical application for product and process development and cost reduction
5. Learning Curves – the concept of learning curve, its applicability, barriers to its application, quantitative estimation and implication of the learning curve, practical applications in industry
6. Job Evaluation – Objectives and need for job evaluation, techniques – point. Rating and job classification, Relation between job evaluation, wage structure and Modern approach through multi skilling
7. Wage Incentives – Financial Motivation techniques, piece rate and time saved based systems, Profit Sharing Systems, Scanlon Plan
8. Work Measurement – objectives, methods – time study, work sampling, Pre – determined motion time systems – applicability and limitations, Process observations, determination and improvement of value adding ratio through reduction of Muda (Waste)
9. Diagnostic Techniques – Kepner – Tregre Problem Analysis, Decision Analysis and Potential Analysis, Practical applications with case studies. Shirose's phenomena Mechanism Analysis & Concept of Mura (inconsistencies and it elimination)
10. Quality Circles – Relationship with total quality Management objectives, seven tools – Pareto Analysis, Scatter diagrams, -use in solving chronic problems: Organizing for Quality Circles, Structure, method of implementation of Quality Circles
11. Creativity Based Techniques – Brain Storming. Whole Brain Thinking Nominal Group Techniques. Use in Creative problem solving with practical applications

12. Ergonomics – Concepts, design of workplace to suit the human being, use of anthropometric data, principles of motion economy, effect of environment of productivity- Hawthorne experiment, Design of work station, use in conjunction with process observation, concept of Muri (non value adding strain) and its elimination

**Reference Text:**

1. Productivity Techniques- P.S. Shrike
2. Introduction to-work study:- A. Hand book -ILO
3. Quality Circle in Action – Mike Robson
4. Productivity Journals Handouts

**OR**

**4.6 Total Quality Management**

**100 Marks**

**Course Content:**

1. Introduction and evolution of quality movement
2. Contributions of Shewhart, Deming; Juran, Feigenbaum, Crosby
3. Contributions of Japanese pioneers Ishikawa, Taguchi, Taichi Ohno, Shigeo Shingo
4. Statistical quality control basics
5. Basics of sampling & reliability
6. Quality tools and techniques
7. Quality Improvement and total Employee Involvement
8. JIT manufacturing and Lean manufacturing through waste elimination
9. Six Sigma tools, quality circles
10. Statistical Process control, process capability studies
11. Cost of quality :- Juran / Crosby
12. CMM / PCMM
13. Quality Management in services - the SERVQUAL Model



**Reference Text:**

1. TOM in this Service- By R.P. Murthy, R.R. Lakhe
2. Total Quality- By Institute of Directors
3. 100 TOM Tools- By Mike Asher, Gopal' Kanji  
Beyond TOM -By R.L. Flood

OR

**4.6 Project Management****100 Marks****Course Content:**

1. Introduction : Concept of Project Management, Scope & Coverage, Project Function in an organization – Layout of Project Department, Role of Consultants in Project Management
2. Project Identification: Selection of product identification of market preparation of feasibility study / report Project formulation – Evaluation of risks preparation of Project report
3. Selection of location & site of the project- Factors affecting location – policies of Central - State Government towards location – Legal aspects of project management
4. Financial Analysis Profitability Analysis – Social cost Benefit Analysis preparation of Budget and Cash Flows
- 4A. Materials Management in Project Planning – Procurement- storage – disposal
5. Financing of the Project: Source of Finance -Cost implications- thereof Financial Institutions – Guidelines for funding projects, Risk Analysis – Sensitivity Analysis
6. Quantitative Aspects of projects: PERT / CPM Network Analysis for monitoring of the project- Other quantitative techniques for monitoring and Control of project
7. Computer Applications: Selection of software packages for application to Project Management

**Reference Text:**

1. PMP – Project Management Professional – "Study Guide" – By Kirni Heldman
2. Project Management- By S. Chaudhary
3. Text Book of Project Management- By P. Gopalakrishnan, V.E. Ramamoorthy
4. Project Management- By Prasanna Chandra
5. Project Appraisal- By P.K.Mattoo
6. Project Management- By Vasant Desai



**Masters in Management Studies (MMS)- Semester III****Modifications in the Revised Syllabus****3.0.1 International Business**

1. Introduction to International Business **(6 hours)**
  - a) Objective, scope, importance and current trends.
  - b) Domestic Business v/s International Business
  - c) Reasons for International Business -for corporates and country
  - d) Modes of entry and operation
2. PEST Factors and impact on International business **(3 hours)**
  - a) Risk analysis
  - b) Decisions to overcome or managing risks- a live current case
3. Investment management In International Business **(3 hours)**
  - a) Foreign Direct Investment
  - b) Offshore Banking
  - c) Foreign exchange dealings and numericals in business
  - d) Resource Mobilization through portfolio / GDR / ADR
  - e) Other options of fundings in ventures and case discussions
4. Multinational corporations **(3 hours)**
  - a) Structure, system and operation
  - b) Advantages and disadvantages- Case discussion
  - c) Current opportunities of Indian MNCs and case discussion
5. Globalization **(3 hours)**
  - a) Concept and Practice
  - b) Role of Global organization and Global Managers
  - c) Stages of building Global companies and competitiveness
  - d) Global competitive advantages of India- sectors and industries- case study
6. International Organizations and their role in international business **(3 hours)**
  - a) W T O
  - b) World Bank
  - c) ADB
  - d) IMF and others -case study

**(Note:** The revised syllabus for M.M.S. (Sem. III. & IV) is modified vide Circular No.UG/172 of 2009 dated 16th May, 2009 and that the same has been Brought into force with effect from the academic year 2009-2010.)

- 7. Regional Trade Agreements and Free Trade Agreements (RTA and FTA) (3 hours)**
- a) NAFTA
  - b) EC
  - c) ASEAN
  - d) OMESA
  - e) LAC
  - f) Others – Case study
- 8. Trade theories and relevance in international business (3 hours)**
- a) Absolute advantage
  - b) Comparative advantage
  - c) Competitive advantages
  - d) Purchasing power points
  - e) PLC- theory
  - f) Others – Case study
- 9. International logistics and supply chain (3 hours)**
- a) Concepts and practice
  - b) Components of logistics and impact on trade
  - c) Others- Case study
- 10. International HR Strategies (3 hours)**
- a) Unique characteristics of global HR
  - b) HR - challenges
  - c) Ethical issues
  - d) Regulatory aspects of HR
  - e) Others- Case study

**Reference Text**

- 1. International Business- Daniels and Radebaugh
- 2. International Business- Sundaram and Black
- 3. International Business- Roebuck and Simon
- 4. International Business – Charles Hill
- 5. International Business – Subba Rao



**Masters in Management Studies (MMS)- Semester III**

**Modifications in the Revised Syllabus**

**3.1.1 Marketing Strategy- University A.sseaernent-100 Marks**

**Course Content**

1. Marketing Strategy - Overview
2. Pillars of Marketing – STPD strategies
3. Market situation strategy- Leaders, challengers, followers, nlchers
4. Competition analysis–Porter's 5 forces model for competitive environment  
Benchmarking exercise, understanding competitive moves and postures
5. Sustainable competitive ad advantage- Porter's generic strategy's
6. Portfolio models – BCG and GE McKinsey matrix
7. New product strategies –Innovation, market entry, Product line extension
8. Communications strategy- Managing communications mix for products,brands.
9. Advertising and sales promotion strategy- campaigns.
  
10. Brand building- FMCG, Consumer durables & Service cases
11. Distribution strategy — Designing of channel systems, managing multichannel Systems
12. Pricing strategy- Value pricing, Optimisation of pricing
13. Marketing Planning – introduction, growth and mature markets, pruning of products .

**Reference Text**

1. Marketing Strategy – Boyd, Walkar and Larreche, McGraw Hill Lrwin
2. Marketing Strategy- Stephen Schnaars, Free Press
3. Strategic Market management – David Aaker John wiley & sons .
4. Strategic marketing text & cases – Craverns



**Masters in Management Studies (MMS)- Semester III****Modifications in the Revised Syllabus****3.2.1 Advanced Financial Management: University Assessment:100 Marks****Course Content****1. Indian Financial System :**

Functions of the Financial System – Financial Markets, Financial Intermediaries-Regulatory System

**2. Analysis of Leverage:**

Operating, Financial and Total

**3. Theory of Capital Structure:**

Net Income Approach- Net Operating Income Approach  
MM Approach-Traditional Approach

**4. Dividend Policy:**

Factors affecting dividend policy decision – Dividend Decision Models – Walter Model – Gordon Model – MM Approach

**5. Financial Planning and Forecasting:**

Meaning and Importance – Approaches to Financial Planning – Profit and Loss Account and Balance Sheet – Growth and External Financing Requirements

**6. Corporate Valuation and Value Based Management:**

Valuation concepts – Valuation of Equity and Debt Instruments – Corporate Valuation Approaches – Various approaches and concept of EVA and MVA

**7. Project Financing and Project Appraisal:**

Sources of long – term finance – Institutional Considerations – Venture Capital – SEBI Guidelines

**8. Derivatives and Risk Management:**

Forward Contracts – Future and Future Contracts – Options and Option Contracts- Interest Rates- Currency Swaps

**9. Investment Banking:**

Internal and External funding options – Primary Issue Management – Private Placement – ADRs / GDRs – Important SEBI Guidelines – Provisions of Companies Act Pertaining to IPOs- Credit Rating Agencies and Process.

**10. Financial Management of PSUs**

**11. Financial Management of Sick Units**

**Recommended Books:**

1. Financial Management-Theory and Practice – Prasanna Chandra
2. Financial Management..: Text, Problems and Cases- Kahn and Jain
3. Financial Management-IM Pandey
4. Financial Management – E F Brigham and J F Houston
5. Financial Management and Policy- Van Horne
6. Managerial Finance-L J Gitman
7. Financial Management – Briely Myres



**Master in Management Studies (MMS)- Semester III****Modification in the Revised Syllabus****3.3.1 Organization Theory – Structure & Design (OTSD)****Orientation to the Subject**

(Objectives, Content, Methodology of teaching Project & Research Assignments & Course Evaluation)

- |   |                     |
|---|---------------------|
| <b>1. Evolution of Organization Theories</b>  | <b>(01)</b>         |
| <b>2. Determinants of Organization structure</b>  | <b>(04)</b>         |
| Strategy  |                     |
| Organization size   |                     |
| Technology  |                     |
| Environment   |                     |
| Power control   |                     |
| <b>3 Organization Structure, Design &amp; Organization Effectiveness</b>  | <b>(06)</b>         |
| <b>4 Application:</b> Managing the Environment, Change, conflict, Culture, & Evolution with special reference to : Impact of mergers, acquisitions & Globalization on organizational structure and effectiveness, managing dynamic processes- decision making, conflict, power & politics, learning organizations, virtual organizations, boundaryless organizations, network organizations, organizational design for change & innovation. | <b>(08)</b>         |
| <b>5 How to Review the Literature Related to organizational Design for Excellence</b>   | <b>(01)</b>         |
| <b>6 Keys to Organizational Excellence:</b> mission, vision and Core Values: Style of Management; strategic Management; Structure and system; Organizational renewal processes.   |                     |
| <b>7 Forms of Excellence:</b> Competitive – Third World Environment; institutionalized – Non – competitive Environments; Rejuvenatory – To rise from near –demise<br>Versatile – In a wide range of conflicting indicators of excellence; Creative – To innovate continuously & successfully: Missionary- To perform a social mission   | <b>(04)</b>         |
|   | <b>Total : (26)</b> |

**Methodology to be followed:**

- Classroom Discussions
- Case Study Method
- Review of Related Literature
- Group Projects & Presentations.

**List of Books to Refer**

- Stephen P. Robbins, Organization Theory- Structure, Design and Applications; Pearson Education
- Hatch Mary Jo & Cunliffe Ann L, Organization Theory – Modern, Symbolic, and Postmodern Perspectives, Oxford University Press.
- Hall Richard H, Organizations- Structures, Processes and Outcomes, Prentice Hall of India
- Stanford Naomi, Organization Design – The Collaborative Approaches, Butterworth – Heinemann
- Khandwalla Pradip N, Organizational Designs for Excellence, Tata McGraw Hill Publishing Company Ltd.
- Gareth R Jones, Organizational Theory, Design and Chang. Pearson Education.





## Masters in Management Studies (MMS)-Semester III

### Modifications in the Revised Syllabus

#### 3.4.1 Operations Planning & Control (OPC)

##### - Course Content

1. **Production Systems**- operations, processes, manufacturing, services- types, models
2. **Product**- Process Technologies
3. **Process** – Product Matrix, Evolution of Production Systems
4. **Evaluation** – Selection of Equipment Requirements- optimization
5. **Layout** – models- optimization
6. **Line Balancing** – models – optimization
7. **Production Plans**- an overview, types
8. **Demand Management**- models
9. **Capacity Planning**- models
10. **Resource Planning**- models
11. **Aggregate Planning**- models
12. **Batch Sizing** – models – optimization
13. **Batch Scheduling**- models – optimization
14. **ERP/SAP-PPC Module**, reports-interpretation-variance analysis-use in decision making
15. **Advanced Concepts** like JIT, FMS, GT, MRP-11, CIM, Robotics, KANSAN, Agile Manufacturing

##### References Text

1. Production Planning & Inventory Control -John F Magee
2. Production Planning & Control – L.C: Jhamb
3. Elements of PPC – By Samuel Eilon
4. PP & Inventory Control – By Seetharama L Narasimhan, Dennis W. Me Leavey, Peter J. Bilington
5. Manufacturing Planning & Control – By Vollman, Bery, Why bark, Jacobs

**Masters in Management Studies (MMS)- Semester III**  
**Modifications in the Revised Syllabus**  
**3.5.1 Software Engineering- UA 100 Marks**

Course Content

- 1. Software Engineering** – Definitions and Concept sand over view of software Engineering (1 session)
- 2. Exposure to Software development process** – Software Development Life cycle (SDLC), Waterfall Model, Spiral, Prototyping, Rational Unified Process, Agile Methodologies – Various phases in each life cycle model and the pros and cons of these approaches :to software development, CASE — Computer Alded Software Engineering (2 sessions)
- 3. Analysis and Design of Information systems (4 session)** – Assasin Feasibility of a system, Gathering detailed Software requirement, use of Structure System Analysis and Design Methods such as Data Flow Diagram (DFD), Entity Relationship Diagrams (ERD), Design of Inputs, Outputs and interfaces, Use of Object Analysis and Design
- 4. Software Manual and Documenting -** Various Software Manuals Documents used at different stages of software development process - User Requirement Specifications- (2.sessions)
- 5. Software Testing and Quality Assurance** – Concept, and Need of Software Testing, Types and Testing Techniques and Automated methodof testing, Quality Assurance of software at each phase in the System lifecycle (2 session)
- 6. Software Project Management-** Process and Techniques including, Software Estimation – Challenges and Methods of software Estimation, Software Project Team, Roles and Skills (2 session)
- 7. Review of Student Presentations on exercise** which requires them to analyse a business process, document the requirements, Analysis and Conceptual design of the system, estimation of the software size (2 session)

Reference Text

- Systems Analysis and Design by James Senn
- OOAD- Buch and Rambaugh
- Structured Systems analysis and design concise study Ed 1: Kelkar S A

- Essentials of Software Engineering by Frank Tsui and Orlande K (2007 CBS Publications; Indian reprint priced at Rs: 325)
- Software Engineering by Waman Jaydekar
- Software Engineering by Roger Pressman
- System Analysis and Design with UML 2.0 An Object- Oriented Approach 2<sup>nd</sup> edition by Alan Dennis, Barbara Haley Wixon David Pegarden
- An integrated approach to software engineering, Narosa 1991
- Software engineering a practice approach, McGraw Hi111992
- Software Engineering an Integrated approach, Jallote
- Nasscom Reports and Nasscom website for Industry Perspective



**ANNEXURE -1**  
**Break up of Internal Assessment and University Question Paper Pattern**

S. No	Subject	Break –up of Internal Assessment (Marks out of 40)				Break – up Of University Question Paper Pattern (Marks out of 60 – 3 hours)		
		Attendance/ class Participation	Case study analysis	Project	Mid Term Test	Total Questions & Marks	Questions to be answerd	Marks
1	Internation Business	10	20	10	-	7@ 10 marks each	4@ 10 marks	40
						1 Case Study @ 20 marks (Compulsory)	Case Study Compulsory	20
						<b>Total</b>		<b>60</b>
2	Marketing Strategy	10	20	10	-	60@ 10 marks	4@10 marks	40
						1 Case study @ 20 marks (Compulsory)	1 case study @ 20 marks (Compulsory)	20
						<b>Total</b>		<b>60</b>
3	Adv Financial Management	10	10	-	20	Practical / Numerical Problems on topic nos 2,3,4,5,6,8, 3@ 15 marks	2@ 15 marks	30
						Theoretical / Conceptual Questions on topic no 1,7,9,10,11,12, 3@ 15 marks	2@ 15 marks	30
						<b>Total</b>		<b>60</b>
4	Organization Theory, Structure & Design	10	20	10	-	6 @ 10 marks	4 @ 10 marks	40
						1 Case study @ 20 Marks (Compulsory)	1 case study @ 20 marks (Compulsory)	20
						<b>Total</b>		<b>60</b>

## ANNEXURE-1

Break up of Internal Assessment and University Question Paper Pattern

		Break-up of Internal Assessment (Marks out of 40)				Break-up of University Question Paper Pattern (Marks out of 60 – 3 hours)		
S. No.	Subject	Attendance / class Participation	Case Study Analysis	Project	Mid Term Test	Total Questions & Marks	Questions to be answered	Marks
5	Operation Planning & Control	10	20	10	-	6@ 10 marks (Conceptual + Application Based)	4@ 10 marks (Conceptual + Application Based)	40
						1 Case study @ 20 marks (Compulsory)	1 Case Study @ 20 marks (Compulsory)	20
						<b>TOTAL</b>		<b>60</b>
6	Software Engineering	-	-	40	-	6@ 10 marks (Conceptual + Application Based)	4@ 10 marks (conceptual + Application Based)	40
						1 Case study @ 20 marks (Compulsory)	1 Case study @ 20 marks (Compulsory)	20
						<b>TOTAL</b>		<b>60</b>
7	Management Control Systems	-	20	-	20	Descriptive / Conceptual 9@ 6 marks	Descriptive / Conceptual 6 @ 6 marks	36
						Numerical Problems 3 @ 7 marks	Numerical Problems 2@ 7 marks	14
						1 Case study Compulsory @ 10 marks (1 out of 2)	1 Case study Compulsory @ 10 marks	10
						<b>TOTAL</b>		<b>60</b>

