

**SYLLABI FOR BE-MBA FIVE YEAR INTEGRATED COURSE
EXAMINATIONS 2021-2022
SCHEME OF TEACHING AND EXAMINATION**

SEMESTER-7th

| S.No. | Course code | Courses |
|--------------|------------------------|----------------|
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| SEMESTER-8th | | | | | | | | | | | |
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| S.No | Course code | Courses | Teaching Hrs. per Week | | | | Practicals | Mid Term | End Term | Total Marks | Category |
| | | | L | T | P | C | | | | | |
| 1 | CHE 401 | Transport phenomena | 3 | - | - | 3 | - | 35 | 40 | 75 | CHE |
| 2 | CHE 402 | Environment Engineering | 3 | 1 | 3 | 5 | 25 | 50 | 50 | 125 | CHE |
| 3 | CHE 403 | Process Modelling and Simulation | - | - | 3 | 1 | 25 | - | - | 25 | CHE |
| 4 | CHE 406 | Project Work | - | - | 2 | | | | | | |

| S No. | List of Departmental Electives | S. No | List of Open Electives |
|------------------|---------------------------------------|------------------|-------------------------------|
| 1 | Petroleum Processing Engineering | 1. | |

**BE-MBA FIVE YEAR INTEGRATED COURSE
[2021-2022]**

SECTION- B

Practical

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|---------------------------|----------------------------|---------------------------------|------------------|----------------------|-------------|
| Title | Transport Phenomena | | | Credits | 3 |
| Code | CHE 401 | Semester:-8th | | L T P | 3 - - |
| Max.Marks | End term 40 | Mid term 35 | Practical | Elective | N |
| Pre requisites | - | | | Contact Hours | 42 (Theory) |

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| Max. Marks | End term--25 | Mid term- - | Practical- | Elective | N |
| Pre requisites | | | | Contact Hours | |
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|-----------------------|------------------------------|---------------------------------|------------------|----------------------|-------------|
| Title | Financial Accounting | | | Credits | 4 |
| Code | CHM 402 | Semester:-8th | | L T P | 3 1 - |
| Max.Marks | End term 50 | Mid term 50 | Practical | Elective | N |
| Pre requisites | - | | | Contact Hours | 42 (Theory) |

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| THEORY | |
| Note for the Examiner | Note for the Paper setter: The question paper should be divided into Section A and Section B Total of 8 questions. 4 questions from section A and 4 questions from section B are to be set. The students will be required to attempt 5 questions selecting at least 2 from each section. |

SECTION-A

Accounting: Accounting and its functions; Accounting as an information system; Basic Accounting Concepts and Accounting Conventions; Accounting Principles; Generally Accepted Accounting Policies (GAAP); Accounting Standards.

Branches of Accounting: Financial Accounting; Cost Accounting; Management Accounting; Accounting Equation; Accounting Structure; Types of Accounts.

Rules regarding Journal Entries; Recording of Journal Entries; Ledger Posting; Cash book; Trial Balance; Preparation of Final Accounts; Trading Account; Profit & Loss Account; Balance Sheet; Treatment of Adjustments into trial balance.

Meaning of Management Accounting: Nature; Scope; Objectives; Functions of Management Accounting; Relationship between Financial and Management Accounting; Meaning of Financial Statement; Importance and Limitations of Financial Statement; Meaning and Objectives of Financial Statement Analysis; Limitation of Financial Analysis.

Tools of financial analysis: Ratio analysis; Common size statements; Trend analysis; Fund flow and cash flow statement.

Cost Accounting: Meaning, scope and classification of costs; Absorption costing; Marginal costing and break even analysis; Use ve

Emphasis, Prentice Hall India.

6.

SECTION-A

General Introduction: Definition, history and economic perspective of petrochemical industry, raw materials for petrochemical industry-petroleum, natural gas, coal, bio-mass, agro-residues, etc.

First Generation Petrochemicals: Petrochemicals based on aliphatic, olefinic, acetylene, aromatics, etc. Hydrocarbons-processing and applications.

Second Generation Petrochemicals: Products based on Synthesis Gas, Method, Ethanol, Ethylene Oxide, Vinyl Chloride, Propylene Oxide, Isopropyl Alcohol, Acetone, Allyl Alcohol, Glycerol, Phenol, Aniline.

SECTION-B

Nylon Monomers, Polyester Monomers, Styrene, Other Monomers - Bisphenol A, Epichlorohydrin, diisocyanates, Pentaerythritol, etc. - properties, process technologies and applications. .

Third Generation Petrochemicals: Important Polymers such as Polyethylene, Polypropylene and their Copolymers and other Derivatives Rubbers, Diene Polymers, Styrene Polymers, Vinyl Polymers and Condensation Polymers - properties, process technologies and applications.

Books Recommended:

1. Steiner, H. : Introduction to Petroleum Chemicals, Pergamon Press.
2. Waddane, A.L. : Chemicals from Petroleum, John Murry.
3. Topchiev, A.V. : Synthetic Materials from Petroleum, Pergamon Press.
4. Astle, M.J. : The Chemistry of Petrochemicals, Reinhold.
5. Maiti, S. : Introduction to Petrochemicals, Oxford and IBH Pub. Co. Ltd., New Delhi, 1992.
6. Frank, H.G. & Stadelhofer, J.W. : Industrial Aromatic Chemistry, Springer Verlag Berlin, 1987.

| THEORY | |
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| Note for the Examiner | Note for the Paper setter: The question paper should be divided into Section A and Section B Total of 8 questions. 4 questions from section A and 4 questions from section B are to be set. The students will be required to attempt 5 questions selecting at least 2 from each section. |

PRODUCTION AND OPERATION MANAGEMENT (Theory)

| THEORY | Time | 3 Hours |
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| Note for the Examiner | | |

SECTION - A

Text books: 1.

2.

3.

Reference 1. Bard, A. J. , L. R., Faulkner, Electrochemical Methods, Wiley, N.Y. (2004)

Books:

(Theory)

THEORY

Note for the

, International organization for standardization , conformance to specifications, quality assurance , Quality circles , quality Audits , ISO 14000 ,Customer operations and performance centre (COPC) 2000

SECTION- B

Service quality Management and cost of Quality : Products and services , classification of services , service quality , measuring service quality , prevention costs , appraisal costs , internal and external failure costs , cost of quality models , India's quality journey so-far , quality related priorities of Indian Companies

Statistical quality/process control – Meaning and significance of statistical process control, Introduction to Quality control and its benefits , Variation in processes , Process capability – meaning ,significance, measurement and its analysis , control charts for variables and attributes , establishing and interpreting control charts ,

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| THEORY | Time | 3 Hours |
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|---------------------------|-----------------------------|-------------------------|---------------------------------|----------------------|---------|
| Title | FINANCIAL MANAGEMENT | | | Credits | 04 |
| Code | CHM-501 | | Semester:-9th | L T P | 4 0 0 |
| Max.Marks | End term 50 | Mid- term 50 | Practical - | Elective | N |
| Pre requisites | | | | Contact Hours | 45 |
| THEORY | | | | | |
| | | | | Time | 3 Hours |

Note for the Examiner The semester question paper of the subject will be of 50 marks having 8 questions of equal marks. The paper will be divided into two parts having four questions each from Section A and Section B. The candidate is required to attempt total 5 questions selecting atleast two

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| THEORY Note for the Examiner | Time | 3 Hours |
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| SECTION- B | |
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| Service Facility :Services capes – behaviour - environmental dimensions – framework; Facility design – nature, objectives, process analysis – process flow diagram, process steps, simulation; Service facility layout; Service Facility Location – considerations, facility location techniques – metropolitan metric, Euclidean, centre of gravity, retail outlet location , location set covering problem | 09 |
| Managing Capacity And Demand : Managing Demand – strategies; Managing capacity – basic strategies, supply management tactics, operations planning and control; Yield management; Inventory Management in Services– Retail Discounting Model, Newsvendor Model; Managing Waiting Lines –Queuing systems, psychology of waiting; Managing for growth- expansion strategies, franchising , globalization. | 09 |
| Text books: | <ol style="list-style-type: none"> 1. James A. Fitzsimmons, Service Management – Operations, Strategy, Information Technology, Tata McGraw-Hill – 7th Edition 2013. 2. Richard Metters, Kathryn King-Metters, Madeleine Pullman, Steve Walton Successful Service Operations Management, South-Western, Cengage Learning, 2nd Edition ,2012 |
| Reference Books: | <ol style="list-style-type: none"> 1. Cengiz Haksever, Barry Render, Roberta S. Russell, Rebert G. Murdick, Service Management and Operations, Pearson Education – Second Edition. 2. Robert Johnston, Graham Clark, Service Operations Management, Pearson Education, 2nd Edition, 2005. 3. Bill Hollins and Sadie Shinkins, Managing Service Operations, Sage, 2006 4. J.Nevan Wright and Peter Race, The management of service operations, Cengage, 2nd Edition, 2004 |

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|--|---|---------------------------------|--------------------|----------------------|------------|
| Title | PRODUCT INNOVATION IN TECHNOLOGY BUSINESS | | | Credits | 04 |
| Code | CHM-506 | Semester:-9th | | L T P | 4 0 0 |
| Max.Marks | End term 50 | Mid term 50 | Practical - | Elective | Y |
| Pre requisites | | | | Contact Hours | 45 |
| THEORY | | | | Time | 3 Hours |
| Note for the Examiner | The semester question paper of the subject will be of 50 marks having 8 questions of equal marks. The paper will be divided into two parts having four questions each from Section A and Section B. The candidate is required to attempt total 5 questions selecting atleast two questions from each Section. | | | | |
| SECTION- A | | | | | Hrs |
| Production function: production function & the organization, five Ps of production, production strategy, planning & controlling the operations - product selection linking the product with marketing, planning the operation, setting up production system, controlling the production, manufacturing system design: organization of manufacturing operation, job batch and flow production methods, group technology - coding composite component, product flow analysis, group technology and just-in-time. | | | | | 12 |
| Just-in-time manufacturing: JIT manufacturing, people involvement, total quality control, advantage of JIT manufacturing, elements that support JIT flow, the kanban system optimized production technology OPT.). manufacturing & service strategies: manufacturing as a competitive advantage, corporate strategy & manufacturing strategy, production planning and inventory control in manufacturing strategy. | | | | | 11 |
| SECTION- B | | | | | |
| Theory of constraints & synchronous manufacturing: introduction, theory of constraints, the goal of performance measures, synchronous manufacturing, speed to market, bench | | | | | |

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| | <p>Performance Through Innovation and Technology , Business Expert Press Frankel Ernst G. Professor, In Pursuit of Technological Excellence: Engineering Leadership, Technological Change, and Economic Development, Praeger Frederick A Fredruck Betz, Managing Technology, Prentice Hall. 5. MaukDudgson, Technology Strategy and the Firm, Longman Publications. 6. Sharif Nawaz, Management of Technology Transfer and Technology, APCTT Bangalore. UN-ESCAP: Technology for Development, ESCAP Secretariat</p> |
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| Title | STRATEGIC MANAGEMENT | | | Credits | 04 | |
| Code | CHM-512 | Semester:-10th | | L T P | 4 0 0 | |
| Max.Marks | End term 50 | Mid term 50 | Practical - | Elective | N | |
| Pre requisites | | | | Contact Hours | 45 | |
| THEORY | | | | | Time | 3 Hours |
| Note for the Examiner | The semester question paper of the subject will be of 50 marks having 8 questions of equal marks. The paper will be divided into two parts having four questions each from Section A and Section B. The candidate is required to attempt total 5 questions selecting atleast two questions from each Section. | | | | | |
| SECTION- A | | | | | Hrs | |
| Basic Concepts of Strategic Management and Business Policy - Evolution of strategic management - strategic management process - levels of strategy - constitution of board - role and functions of corporate board and top management in strategic management. | | | | | 03 | |
| Environmental Scanning - External and internal analysis – SWOT - industry analysis - Porter's five force model and strategies groups- resource based view and value chain analysis - core competency and competitive advantage - VRIO model | | | | | 05 | |
| Strategy Formulation: SWOT analysis, Strategies Factor Analysis Summary (SFAS), TOWS matrix, Corporate Strategy: Stability, Profit, Growth, Concentration, Diversification, Cost leadership, Differentiation, Focus, Life cycle effects, Tactics. | | | | | 06 | |
| Functional Strategy: Marketing, Financial, Operation, Human resource, Research and development, Risk culture, Strategy in global environment. | | | | | 06 | |
| SECTION- B | | | | | | |
| Building and Restoring Business Units - Strategic Choice, Corporate Strategy, Takeover, Restructuring, Retrenchment, Divestment, Harvest, Liquidation, Turnaround strategy 03 | | | | | | |
| Strategic Choice: Concept, Process, BCG Matrix, GE matrix, Corporate parenting, Process of strategic choice, Balance scorecard | | | | | | |

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|---------------------------------|------------------------------|------------------------------|--------------------|----------------------|---------|
| Max.Marks | End term 50 | Mid-term 50 | Practical - | Elective | N |
| Pre requisites | | | | Contact Hours | 45 |
| THEORY | | | | Time | 3 Hours |

Note for the Examiner

The semester question paper of the subject will be of 50 marks having 8 questions of equal marks. The paper will be divided into two parts having four questions each from Section A and Section B. The candidate is required to attempt total 5 questions selecting atleast two questions from each Sea.

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| Strategic Cost Management: Meaning, Nature and Significance of Strategic Cost Management, Limitations of Traditional Costing, Difference between Conventional Cost Analysis and Strategic Cost Analysis, Financial, Operational and Strategic Views of Cost, Contemporary Cost Management Tools, Activity Based Costing and Activity Based Management: Treatment of Cost, Steps, Advantages, Disadvantages. | 7 |
| Value Analysis: Meaning of Value Analysis and value addition, Strategic Application of Value Chain Analysis. | 2 |
| Strategic Positioning Analysis: Critical Success Factors and SWOT Analysis. | 2 |
| Cost Volume Profit Analysis: Cost Behaviour Pattern, Cost Estimation Methods, Assumptions of CVP Analysis, Applications of CVP, Break Even Analysis, CVP Analysis in the choice of Cost Structure, Multiple Product Analysis. | 10 |
| SECTION- B | |
| Variance Analysis: Basics of Standard Costs, Material Variances, Labour Variances, Overhead Variances, Difficulties in Measuring Variances, Evaluation of Control based on Standard Costing, Numerical Problems. Valuation of Intangible Assets: Meaning of Intangible Assets, Acquired and Generated Assets, Importance, Methods of Valuation for Goodwill, Human Resource, Brands, Patent, Relevant Indian and International accounting standards, Current Scenario in India, Numerical Problems. | 10 |
| Responsibility Accounting: Activity based Responsibility Accounting, Behavioural aspects of responsibility accounting, Transfer Pricing. | 5 |

Performance Evaluation: Traditional Framework of Performance Evaluation,
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| induction process; | |
| Human Resource Development: Concept, Employee training & development; Career Planning & development, Managing Career and Fair Treatment; Promotions, demotions, transfers, separation, absenteeism & turnover; | 6 |
| SECTION- B | |
| Job Compensation: Wage & salary administration, incentive plans & fringe benefits. Labour Legislations: Factories Act, International Labor Organization Labor Management Cooperation/Workers' Participation in Management, Payment of Wage Legislation Minimum Wage Legislation, Equal Remuneration Legislation | 7 |
| Performance Management: Concept & process, performance appraisal, Potential appraisal; | 4 |
| Quality of work life (QWL): Meaning, techniques for improving QWL. | 4 |
| Industrial Relations: Concept and theories, trade unions; Health, Safety & Employee welfare measures; Employee grievances and discipline, participation & empowerment; Introduction to collective bargaining, Methods of settling Industrial Disputes, Legislations Concerning Settlement of Industrial Disputes | 8 |

commerce, Steps BPR implementation-tools that support BPR

Identification of current business processes – Establishing the scope of the process –

SYLLABUS FOR ELECTIVE-II

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| Title | INDUSTRIAL & RURAL MARKETING | Credits | 04 |
| Code | CHM-518 | Semester:-10th | |

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| <p>Budget, Bill Market Scheme.</p> <p>Purchasing Under Uncertainty – Classification of Decision problems, Uncertainty Situations, Principles of Rationality, Principle of Mini-max, Principle of Maxi-max, Principle of Optimum, Principle of Regret</p> | |
| <p>Purchase systems – Introduction - Pre purchase systems, Ordering System, Post Purchase system, Special purchasing systems. Purchasing under fluctuating Prices, Conservative & Hand Sight Policy, Determining the optimal buying strategy.</p> <p>International Purchasing-Procedures and Documentation; Purchasing of Capital Equipment – Appraisal Methods, Evaluating Suppliers Efficiency, Stores Layout, Classification and Codification; Legal Aspects of Purchasing, Public Purchasing and Tendering.</p> | 09 |
| <p>SECTION- B</p> | |

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| Examiner | and Section B. The candidate is required to attempt total 5 questions selecting atleast two questions from each Section. |
| SECTION- A Basics of Facilities Location Selection – basic concepts, importance of site selection for | Hrs |

Paper Title : RESEARCH PROJECT (MANAGEMENT) (Practical)
Paper Code: CHM509 **Marks S or X Credits: 2**

Paper Title : COMPREHENSIVE VIVA (MANAGEMENT) (Practical)
Paper Code: CHM 519 **Marks 25 Credits: 1**