

MAHARSHI DAYANAND UNIVERSITY ROHTAK
DEPARTMENT OF COMMERCE

CURRICULUM AND CREDIT FRAMEWORK FOR
M.COM FIVE YEAR INTEGRATED PROGRAMME (CCFYIP)
Scheme of Examinations under National Education Policy 2020
w.e.f. Session 2023-24

M.Com 5 Year Integrated: 3rd Semester

Sr No.	Paper Code		Theory Marks	Int. Ass.	Total Marks	Exam Time	Credits
1.	24COM503DS01	Corporate Accounting-I	70	30	100	3 Hrs	04
2.	24COM503DS02	Cost Accounting	70	30	100	3 Hrs	04
3.	24COM503DS03	Business Statistics and its Applications	70	30	100	3 Hrs	04
4.	24COM503MI01	Basics of Corporate Accounting (For students of other UTDs)	70	30	100	3 Hrs	04
5.	24COM503MD01	Corporate Governance (For students of other UTDs)	50	25	75	3 Hrs	03
6.		Ability Enhancement Course (To be selected from University Common Pool)	35	15	50	3 Hrs	02
7.	24COM503SE01	Cyber Security and Artificial Intelligence in Commerce	50	25	75	3Hrs	03
Total Marks & Credits					600		24

Abbreviation:-

1. DSC : Discipline Specific Course
2. MIC : Minor Course
3. MDC: Multi Disciplinary Course
4. SEC : Skill Enhancement Course

- Note:** 1) The minor course mentioned above is offered for the students of UTDs other than students of Commerce Department.
- 2) A student of Commerce Department while selecting the minor discipline has to ensure that the course of the opted minor discipline do not match with the Discipline Specific Course of his/her opted Programme.

M. Com. 5 Year Integrated: 3rd Semester

w.e.f. session 2023-24

Paper: Corporate Accounting-I

Paper Code: 24COM503DS01

Max Marks: 100

Theory Marks: 70

Int. Ass.: 30

Time: 3 Hrs.

Credits: 04

Course Outcome:-

CO 1: Acquire the knowledge in company accounts such as meaning of a company, characteristics of a company, definition of shares, debentures, underwriting and goodwill, types of shares, bonus share, right share and underwriting, liquidation.

CO 2: Understand the accounting treatment in issue of shares at par premium and discount, issues of debenture, managerial remuneration, calculation of goodwill and shares and liquidator's statement of affairs.

CO 3: Develop the application skills to computation of pro-rate allotment, redemption of preference shares, profit and loss account and preparation of balance sheet of companies (new format).

CO 4: Evaluate the techniques for redemption of preference share, valuation of goodwill and shares, deficiency account in liquidation.

CO 4: Gain confidence in preparation of company accounts in new format, various methods for calculating good will and shares, and preparation of liquidator's final statement accounting

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit -I

Accounting for Share Capital: Classification of Shares, Issue of Shares, Issue of Right and Bonus Shares, ESOPs, Buy Back of Shares, Forfeiture of shares; Issue and Redemption of Preference Shares.

Unit-II

Accounting for Debentures: Issue and classification of debentures, Redemption of Debentures, **Valuation of Goodwill:** Need and Methods of Valuation, **Valuation of Securities:** Need for valuation, Methods of Valuation- Net Assets Method, Yield Basis Method, and Fair Value Method.

Unit-III

Company Final Accounts: Provisions of the Companies Act, 2013 - Preparation of Final Accounts - Adjustments Relating to Preparation of Final Accounts- Profit and Loss Account and Balance Sheet. Profit or loss prior and subsequent to incorporation.



Unit-IV

Accounting for Holding and Subsidiary Companies: Consolidated Financial Statements

Suggested Readings:

- *Shukla M.C, Grewal T.S and Gupta S.C. Advance Accounts: S.Chand & comp., New Delhi.*
- *Gupta R.L & Radha Swami M. Company Account: Sultan Chand, New Delhi.*
- *Monga J.R., Ahuja Girish and sehgal Ashok Financial Accounting: Mayur paper backs, Noida*
- *Goel, D.K., Corporate Accounting. Arya Publications, New Delhi*
- *P.C. Tulsian, Corporate Accounting, S.Chand Publishers*

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M. Com. 5 Year Integrated: 3rd Semester
w.e.f. session 2023-24
Paper: Cost Accounting
Paper Code: 24COM503DS02

Max Marks: 100
Theory Marks: 70
Int. Ass.: 30
Time: 3 Hrs.
Credits: 04

Course Outcome:-

- CO1:** Demonstrate domain knowledge in installation of costing system;
CO2: Better knowledge about the how to get over from the labour turnover, overtime and idle time;
CO3: Understanding the distribution scheme of production overhead and factory overhead;
CO4: Getting the deep knowledge about the inter-process profit.

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No. 1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one questions from each unit. All questions shall carry 14 marks each.

Unit-I

Cost Accounting: Meaning, nature, scope and limitations; Concept of cost elements and types; Cost of Material, inventory control techniques. Pricing of issue of inventory/material.

Unit-II

Labour Cost: Idle time, Overtime, Labour turnover, Labour cost control, incentive wage plans.
Overheads: Meaning, Classification, Allocation, Apportionment and Absorption of overheads.

Unit-III

Unit Costing; Operating costing; Reconciliation of cost and Financial Accounts.

Unit-IV

Contract Costing and Process costing excluding equivalent production.

Suggested Reading:

- *Iyenger S.P. Cost Accounting Sultan Chand & Sons, New Delhi.*
- *Maheshwari S.N. & Mittal S.N. Cost Accounting Shree Mahavir Book Depot, Delhi.*
- *Jain S.P. & Narang K.L. Cost Accounting-Principles & Practice Kalyani publishers*



**M. Com. 5 Year Integrated: 3rd Semester
w.e.f. session 2023-24**

**Paper: Business Statistics and its Applications
Paper Code: 24COM503DS03**

**Max Marks: 100
Theory Marks: 70
Int. Ass.: 30
Time: 3 Hrs.
Credits: 04**

Course Outcome:-

CO 1: Students will be able to summarize and analyze statistical data to solve practical business related problems.

CO 2: Students will be able to interpret the relevance of statistical findings for business problem solving and decision making.

CO 3: Students will be able to apply technology to statistical analysis and problem solving.

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

UNIT-I

Introduction of statistics: concept, scope, usefulness & limitations of statistics, distrust of statistics. Collection of data: primary and secondary data, methods of collection of data.

UNIT-II

Measure of central tendency: mean, median, mode, harmonic mean and geometric mean. Measure of dispersion: range, inter-quartile range, quartile deviation, mean deviation, standard deviation, coefficient of variation, Lorenz curve.

UNIT-III

Index numbers: meaning, types and uses of index numbers, methods of preparation of index numbers: simple or unweighted and weighted index number, problems in the preparation of index numbers, Tests of adequacy; Chain-base index numbers; Base shifting, Splicing and deflating, Consumer price index.

UNIT-IV

Analysis of Times Series: causes of variation in time series data; Components of a time series; Decomposition: additive and multiplicative models; determination of trend: moving averages



method and method of Least Squares (including linear second degree, parabolic, and exponential trend); Computation of seasonal-indices by sample averages, ratio-to-trend, ratio-to moving average and link relative methods.

Suggested Readings:-

- *Gupta S.P., Business Statistics, Sultan Chand Publications, New Delhi.*
- *Hooda, R.P., Introduction to Statistics, Macmillan, New Delhi.*
- *Hooda, R.P., Statistics for Business and Economics; Macmillan; New Delhi.*
- *Lewin and Rubin, Statistics for Management, Prentice-Hall of India, New Delhi.*
- *Sancheti, D.C. and Kapoor, V.K., Statistics (Theory, Methods & Application), Sultan Chand & Sons, Delhi.*
- *Hoel & J Assen, Basic Statistics for Business and Economics; John Wiley and Sons, New York.*

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M.Com 5 Year Integrated: 3rd Semester

Paper: Basics of Corporate Accounting

Paper Code: 24COM503M101

w.e.f. session 2023-24

Max Marks:100

Theory Marks :70

Int. Ass. 30

Time: 3Hrs

Credit : 04

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit –I

Corporate Accounting: Nature and Significance, Corporate Reporting- Accounting Standards, Disclosure Norms - Generally Accepted Accounting Principles (GAAP).

Unit-II

Share and Share Capital: Classification of Shares, Issue of Shares, Issue of Right and Bonus Shares, ESOPs, Buy Back of Shares, Forfeiture of shares; Issue and Redemption of Preference Shares.

Unit-III

Debentures: Issue, classification and Redemption of Debentures

Unit-IV

Valuation of Goodwill: Methods of valuing Goodwill - Different methods of valuation (simple problems)

Suggested Readings:

1. Shukla M.C, Grewal T.S and Gupta S.C. Advance Accounts: S.Chand& comp., New Delhi.
2. Gupta R.L &Radha Swami M. Company Account: Sultan Chand, New Delhi.
3. Monga J.R., Ahuja Girish and sehgal Ashok Financial Accounting: Mayur paper backs, Noida

4. Goel, D.K., Corporate Accounting. Arya Publications, New Delhi
5. P.C. Tulsian, Corporate Accounting, S.Chand Publishers

M.Com 5 Year Integrated: 3rd Semester
Paper: Corporate Governance
Paper Code: 24COM503MD01
w.e.f. session 2023-24

Max Marks:75
Theory Marks :50
Int. Ass. 25
Time: 3Hrs
Credits: 03

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 5 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 10 marks each.

UNIT-I

Corporate Governance: Meaning, significance and principles; Management and corporate governance; Theories of Corporate Governance: Agency Theory, Stewardship theory, Stakeholder Theory, Resource Dependency Theory, Managerial Hegemony Theory; Models of Corporate Governance; Art of Governance as per Kautilya's Arthashastra.

UNIT-II

Board structure and Directors; Role of Board; Board Committees and their functions; Insider Trading; Whistle Blowing; Shareholders Activism; Role of institutional investors; Class Action suits. CSR and Corporate Governance. Concept of Gandhian Trusteeship.

UNIT-III

Regulatory framework in India: Kumar Mangalam Birla (1999), NR Narayana Murthy Committee (2005), Relevant provisions of Companies Act, 2013, SEBI: Listing Obligations and Disclosure Requirements Regulations (LODR), 2015 and Uday Kotak Committee (2017).

UNIT-IV

Satyam Computer Services Ltd, Kingfisher Airlines, PNB Heist, IL&FS Group Crisis; ICICI Bank, Yes Bank; Common Governance Problems in various corporate failures in India and abroad.

Suggested Readings:-

1. *A handbook of corporate governance*. (2022). (3rd ed.). Institute of Directors. Delhi, India: IOD Publishing.
2. Das, S. C. (2021). *Corporate governance in India: An evaluation*. (4th ed.). Delhi, India: PHI Learning Pvt. Ltd.
3. Goel, S. (2019). *Corporate governance: principles and practices* (1st ed., Vol. 1). Noida, India: McGraw-Hill.

4. Sharma, J. P. (2018). *Corporate governance, business ethics and csr: with case studies and major corporate scandals*. Delhi, India: Ane Books.
5. Soloman, J. (2021). *Corporate governance and accountability*. (5th ed.). United States: Wiley
6. Tricker, B., & Tricker, R. I. (2015). *Corporate governance: principles, policies, and practices*. United States: Oxford University Press.
7. Tricker, B. (2020). *Elements in corporate governance*. United Kingdom: Cambridge University Press.

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M.Com 5 Year Integrated: 4th Semester

Sr No.	Paper Code	Nomenclature	Theory Marks	Int. Ass.	Total Marks	Exam Time	Credits	
1.	24COM504DS01	Corporate Accounting-II	70	30	100	3 Hrs	04	
2.	24COM504DS02	Cost Management	70	30	100	3 Hrs	04	
3.	24COM504DS03	Financial Reporting & Auditing	70	30	100	3 Hrs	04	
4.	24COM504DS04	Statistical Analysis for Business	70	30	100	3 Hrs	04	
5.	24COM504MV02	Financial Engineering	70	30	100	3 Hrs	04	
6.		Ability Enhancement Course (To be selected from University Common Pool)	35	15	50	3 Hrs	02	
7.	-----	Value Added Course (To be selected from University Common Pool)	35	15	50	3 Hrs	02	
Total Marks & Credits							600	24

Abbreviation:-

1. DSC : Discipline Specific Course
2. MV : Minor/Vocational Course

- Note:**
1. Students exiting the program after 4th Semester and securing 96 credits including 4 credits of summer internship will be awarded UG Diploma in the relevant discipline/subject.
 2. The students shall learn any job oriented skill under the Summer Internship of 01 month (30 days) during the month of May/June after their annual examination of 4th semester. They shall produce the certificate for the same in the office of the department before the commencement of 5th semester classes.

M. Com. 5 Year Integrated: 4th Semester

w.e.f. session 2023-24

Paper: Corporate Accounting-II

Paper Code: 24COM504DS01

Max Marks: 100

Theory Marks: 70

Int. Ass.: 30

Time: 3 Hrs.

Credits: 04

Course Outcome:-

CO1: To recognise and understand the ethical issues in while preparing Final Accounts of a company.

CO2: An understanding of the regulatory environment regarding accounts of Banking Companies and Underwriting of shares and debentures

CO3: The ability to prepare the accounts of Insurance Companies and consolidated accounts after Liquidation of companies

CO4: An understanding of accounting requirement of corporate groups like preparing the accounts of Electricity Companies.

CO5: To employ the critical thinking skills to analyse the accounting data as well as the effects of different accounting methods on financial statements of a company.

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit-I

Accounting for Amalgamation of Companies (excluding inter-company holdings), Treatment in the books of both the companies, Accounting for Different forms of Internal Reconstruction (excluding drafting of Internal Reconstruction Scheme).

Unit-II

Bank accounts - Concept of Non-Performing Assets (NPA)-Preparation of Profit and Loss Account - Asset classification - Preparation of Balance Sheet, Underwriting of shares and Debentures (in reference to Relevant Accounting Standards)

Unit-III

Liquidation of companies: Meaning – Need for liquidation - Preparation of Liquidator's Final Statement of Account - Legal Provisions – Calculation of Liquidator's Remuneration – Adjustment of Shareholder's rights (Problems)

Unit-IV

Double Account System, Accounts of Electricity Companies



Suggested Readings:

- *Shukla M.C, Grewal T.S and Gupta S.C Advance Accounts: S.Chand and Comp., New Delhi.*
- *Gupta R.L & Radha Swami M. Company Accounts: Sultan Chand and sons, New Delhi.*
- *Monga J.R, Ahuja Girish and Sehgal Ashok Financial Accounting: Mayur Paper Bags, Noida.*
- *Goel, D.K., Corporate Accounting. Arya Publications, New Delh*



M. Com. 5 Year Integrated: 4th Semester

w.e.f. session 2023-24

Paper: Cost Management

Paper Code: 24COM504DS02

Max Marks: 100

Theory Marks: 70

Int. Ass.: 30

Time: 3 Hrs.

Credits: 04

Course Outcome:-

- CO1:** Demonstrate domain knowledge in installation of costing system;
- CO2:** Better knowledge about the how to get over from the labour turnover, overtime and idle time;
- CO3:** Understanding the distribution scheme of production overhead and factory overhead;
- CO4:** Getting the deep knowledge about the inter-process profit.

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit-I

Cost Control, importance of Cost Control, elementary of a Cost Control Scheme, Cost Control Techniques, Cost Control in Individual Cost Elements, Cost reduction, Cost reduction process, Tools and techniques of Cost reduction, Cost Control v/s Cost Reduction, Value Analysis, Types of Value, Procedures of Value Analysis, Relationship between value, function and cost, Techniques of value analysis developed by Lawrance D. Miles.

Unit-2

Activity based Costing (ABC), Inadequacies of traditional methods of overhead absorption. Under costing and over costing, Product-Cost-Cross subsidization, Cost Hierarchies, Cost Drivers and cost pools, implementing ABC system for cost management and profitability, Kaplan and Cooper's approach to ABC.

Unit-3

Productivity, Concept, Measurement of Productivity, Productivity of Material, Labour and other Factors, Productivity of Management Resources, Importance of Human Factor in Productivity Drive, Productivity and Profitability. Supply chain Analysis, Key Success Factors, Value chain analysis, Steps in Value Chain analysis, Value Chain Analysis for assessing competitive advantage.



Unit-4

Target Costing, origin, steps or stages in target costing, traditional vs. target costing, target costing process, impact of target costing on profitability. Kaizen, Concept, Procedure for implementation, evaluation, Kaizen Costing. Business Process Outsourcing (BPO), Concept, 71 Major Areas, types of outsourcing, Outsourcing vs. Contracting, Outsourcing vs. BPO, Business Process Reengineering (BPR), Concept, Methodology. Synergy, characteristics, types.

Suggested Readings:-

- Saxena and Vashishtha: Advanced Cost Accounting; Sultan Chand and Sons, Delhi.
- Horngren Charles. T: Cost Accounting – A Managerial Emphasis. Pearson Publications, Delhi.
- Ravi M. Kishore : Cost Management – Taxman Publications, Delhi.
- Jain, S.P, K.L.Narang : Advanced Cost Accounting. Kalyani Publications, Delhi

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M. Com. 5 Year Integrated: 4th Semester
w.e.f. session 2023-24

Paper: Financial Reporting & Auditing
Paper Code: 24COM504DS03

Max Marks: 100
Theory Marks: 70
Int. Ass.: 30
Time: 3 Hrs.
Credits: 04

Course Outcome-

CO1: To be able to understand the concepts of financial reporting, developments and the types of Reporting.

CO2: To Examine unique financial reporting requirements for mutual funds, non-banking and merchant bankers, and explore various contemporary issues.

CO3: To understand auditing principles and techniques, classify audit types and planning processes, and perform routine audit procedures.

CO4: To gain knowledge of company auditors' qualifications, powers, and duties and to prepare audit reports.

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit-I

Financial Disclosures and Reporting: Objectives and Concepts, Developments on Financial, Reporting Objectives: True blood Report, Corporate Report, Stamp Report, IASB's and FASB's Conceptual Framework, Corporate Annual Report, Segment Reporting and Interim Financial Reporting.

Unit-II

Financial Reporting by Mutual funds, Non-Banking finance companies, Merchant bankers Contemporary Issues in Accounting:- Human Resource Accounting, Corporate Social Reporting, Forensic Accounting and Reporting. Environmental Reporting.

Unit-III

Introduction: Meaning, objectives, basic principles and techniques, classification of audit. Audit Planning: Internal control, Internal check & Internal audit, Audit Procedure: Routine checking, Vouching, Verification & Valuation of Assets & Liabilities.

Unit-IV

Audit of Limited Companies: Qualification, Appointment of company Auditors, their powers, duties and liabilities, Audit committees, Audit of depreciation and reserves, Audit Report: Meaning, objectives, contents and types.



Suggested Readings:-

- *Jawahar Lal, "Corporate Financial Reporting: Theory and Practice" Taxman, 2nd Ed.*
- *Kumar Ravinder and Sharma Virender, Auditing, Principles and Practice, PHILearning Private Limited, New Delhi.*
- *Tondon B.N., Principles of Auditing, S. Chand and Co., New Delhi.*
- *Gupta Kamal, Contemporary Auditing, Tata Mc Graw Hill, New Delhi.*
- *Sharma T.R., Principles of Auditing, Sahitya Bhawan, Agra.*
- *Jha Aruna, Auditing, Taxmann's Publications Pvt. Ltd.*

A handwritten signature in blue ink, appearing to be 'D. S. Mehta', is written above a horizontal line.

**M.Com 5 Year Integrated: 4th Semester
Paper: Statistical Analysis for Business
Paper Code: 24COM504DS04
w.e.f. session 2023-24**

**Max Marks:70
Time: 3Hrs
Credits: 4**

Course Outcome:-

CO1: This subject will introduce students to the quantitative tools that are necessary for day-to-day business needs.

CO2: To develop an ability to analyse and interpret data to provide meaningful information to assist in making management decisions.

CO3: How to apply discrete and continuous probability distributions to various business problems.

CO4: Compute and interpret the results of Bivariate and Multivariate Regression and Correlation Analysis

CO5: To employ the critical thinking skills to interpret statistical data.

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

UNIT-I

Probability and Expected Value: Meaning and Schools of thoughts, Importance of the Concept of the Probability; Calculation of Probability, Probability Theorems: Addition, Multiplication and Bayes' Theorem. Mathematical Expectations. Numerical of Probability.

UNIT-II

Probability Distribution: Binomial, Poisson & Normal distribution, Moments, skewness and kurtosis (with Sheppard's corrections)

UNIT-III

Correlation Analysis – meaning, significance, types and methods, probable error, coefficient of determination; Regression analysis – Meaning, equations, lines. Standard error of estimate. Difference between correlation and regression.

UNIT-IV

Statistical Decision Theory: Ingredients, expected opportunity loss, optimal decisions with maximin, minimax and Bayes' principle (with prior, pre-posterior and posterior analysis) Statistical Quality Control.

Suggested Readings:

- Dr.S.P.Gupta, Statistical methods, S.Chand & Co., New Delhi.
- D.N.Elhance, Veena Elhance, B.M.Aggarwal, Fundamentals of Statistics, Kitab Mahal.
- N.P.Aggarwal, Quantitative Techniques, Ramesh Book Depot., Jaipur.
- R.P.Hooda, Statistics for Business and Economics, Mcmillan India Ltd., New Delhi.

M. Com. 5 Year Integrated: 4th Semester

w.e.f. session 2023-24

Paper: Financial Engineering

Paper Code: 24COM504MV02

Max Marks: 100

Theory Marks: 70

Int. Ass.: 30

. Time: 3 Hrs.

Credits: 04

Course Outcome :

CO1: Describe the concept and significance of financial engineering.

CO2: Analyse financial engineering in India.

CO3: Discuss financial engineering processes and strategies.

CO4: Explain emerging instruments in financial engineering.

CO5: Assess and analyse the corporate risk management.

Note: The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the

eight questions will be set from all the four units. The examiner will set two questions from each unit out

of which the candidate shall attempt four questions selecting one question from each unit. All questions

shall carry 14 marks each.

Unit-I

Financial engineering - meaning and need of financial engineering, difference between financial engineering and financial analysis, tools used in financial engineering, growth and need for financial engineering, skill set required for financial engineering.

Unit-II

Financial engineering in India: Financial Derivatives and futures markets. Nature, types and value drivers of financial instruments and products viz., time value of money, required rate of return; valuation: Absolute and relative valuation, risk -return, investment horizon and portfolio considerations.

Unit-III

Financial engineering processes and strategies - assets and liabilities management, securitization, asset backed securities, mortgage backed securities, corporate restructuring and leverage buyouts/ management buyout, value at risk (VAR). Emerging instruments: Flybrid securities, credit derivatives, options on debt instruments, exotic options, synthetic instruments, and issues related to accounting treatment of derivatives.

Unit IV

Corporate risk management - planning and controlling reasons for hedging, cash flow hedges and value hedges, capital structure and hedging, interest rate risk management.

Suggested Readings

•J.C. Hul, Options, Futures and Other Derivatives, 10th Ed., Pearson, 2018

- J Cvitanic and F. Zapatero, 'Introduction to the Economics and Mathematics of Financial Markets, Prentice-Hall of India, 2007.
- S. Roman, Introduction to the Mathematics of Finance: From Risk Management to Options Pricing, Springer, 2004.
- D. G. Luenberger, Investment Science, 2nd Ed., Oxford University Press, 2013. -
- - N. J. Cutland and A. Roux, Derivative Pricing in Discrete Time, Springer, 2012.