Paper 11

FINANCIAL MANAGEMENT AND BUSINESS DATA ANALYTICS (FMDA)   100 Marks

Module No.	Module Description	Weight
	Section A: Financial Management	**80%**
1	Fundamentals of Financial Management	5%
2	Institutions and Instruments in Financial Markets	10%
3	Tools for Financial Analyses	15%
4	Sources of Finance and Cost of Capital	10%
5	Capital Budgeting	15%
6	Working Capital Management	15%
7	Financing Decision of a Firm	10%
	Section B: Business Data Analytics	**20%**
8	Introduction to Data Science for Business Decision-making	5%
9	Data Processing, Organisation, Cleaning and Validation	5%
10	Data Presentation: Visualisation and Graphical Presentation	5%
11	Data Analysis and Modelling	5%

SECTION A: FINANCIAL MANAGEMENT

1. **Fundamentals of Financial Management**
   1.1 Introduction to Financial Management
   - 1.1.1   Fundamentals
   - 1.1.2   Objective of Financial Management
   - 1.1.3   Scope and Functions of Financial Management
   - 1.1.4   Profit Optimisation and Value Maximisation Principle
   - 1.1.5   Dynamic Role of a CFO in Emerging Business Environment

   1.2   Time Value of Money
   - 1.2.1   Rationale
   - 1.2.2   Techniques
   - 1.2.3   Future Value and Present Value of a Single Cash Flow
   - 1.2.4   Annuity and Perpetuity
   - 1.2.5   Compound Annual Growth Rate (CAGR)
   - 1.2.6   Practical Applications

   1.3   Risk and Return
   - 1.3.1   Various Connotations of Return

1.3.2   Ex–ante and Ex–post Return

1.3.3   Types of Risks

1.3.4   Calculation of Return and Risk

1.3.5   Capital Asset Pricing Model

2. **Institutions and Instruments in Financial Markets**

2.1 Financial Institutions

2.1.1   Reserve Bank of India

2.1.2   Commercial Banks

2.1.3   NBFCs

2.1.4   Insurance Companies

2.1.5   Pensions Funds

2.1.6   Alternative Investment Funds (AIF): Angels, Venture Capital, Private Equity and Hedge Funds

2.1.7   SEBI Regulations (including AIF Circulars)

2.2 Capital Market

2.2.1   Primary and Secondary Markets and its Instruments

2.2.2   Compulsory / Optionally Convertible Financial Instruments, Deep Discount Bonds

2.2.3   Euro Bond and Masala Bond

2.2.4   Rolling Settlement, Clearing House Operations

2.2.5   Dematerialization, Re-materialisation and Depository System

2.2.6   Initial Public Offering (IPO), Follow on Public Offer (FPO), Book Building, Green-shoe Option

2.2.7   Offer for Sale, Private Placement and Preferential Allotment

2.2.8   Insider Trading

2.2.9   Credit Rating - Credit Rating Methods and Rating Agencies in India

2.3 Money Market

2.3.1   Call Money

2.3.2   Treasury Bills

2.3.3   Commercial Bills

2.3.4   Commercial Paper

2.3.5   Certificate of Deposits

2.3.6   Repo, Reverse Repo

2.3.7   Promissory Notes and Government Securities

3. **Tools for Financial Analyses**

3.1 Comparative, Common-Size Financial Statements and Trend Analysis

3.2 Financial Ratio Analysis

3.2.1   Financial Ratio Analysis

3.2.2   Financial Scores: Altman's Z Score, Beneish M Score, Piotroski F Score

3.3 Fund Flow Statement – Preparation and Analysis

3.4 Cash Flow Statement – Preparation and Analysis

4. **Sources of Finance and Cost of Capital**

4.1 Sources of Finance

4.1.1   Long Term and Short Term

4.1.2   Financing a Start-up – Alternative Investment Funds and Crowd Funding

4.1.3   Cost of Capital

- Meaning of Cost of Capital
- Computation of Weighted Average Cost of Capital

5. **Capital Budgeting**

5.1 Introduction to Capital Budgeting

5.2 Identification of Cash Flows and Forecasting

5.3 Cash Flow vs. Profit of the Firm

5.4 Evaluation Techniques – Non-discounted and Discounted Cash Flow Methods

5.5 Hurdle Rate in a Conglomerate Environment

6. **Working Capital Management**

6.1 Introduction to Working Capital Management

6.1.1   Theoretical Underpinnings

6.1.2   Planning of Working Capital

6.1.3   Working Capital Cycle and Cash Cycle

6.1.4   Estimation of Working Capital Requirement

6.2 Receivable Management

6.3 Payable Management

6.4 Inventory Management

6.5 Management of Cash and Cash Equivalents

6.5.1   Motives of holding Cash

6.5.2   Objectives of Cash Management

6.5.3   Models of Cash Management

6.6 Financing Working Capital

6.6.1   Monthly Cash Flow Forecast and Analysis

6.6.2   Maximum Permissible Bank Finance (MPBF) Calculation

6.6.3   Commercial Paper

6.6.4   Export Financing – Pre-shipment and Post-shipment Packing Credit

7. **Financing Decisions of a Firm**

7.1 Capital Structure and Capital Stacking

7.1.1   Collateral

7.1.2   Covenant (Financial and Non-financial), Negative Covenants and Cross Default

7.1.3   Capital Stacking and Risk Analysis

7.1.4   Senior and Junior Debt Management

7.1.5   Capital Structure Theories

7.2   Leverage Analyses and EBIT – EPS Analysis

7.3   Dividend Decisions and Dividend Theories

SECTION B: BUSINESS DATA ANALYTICS

8. **Introduction to Data Science for Business Decision-making**

    8.1   Meaning, Nature, Properties, Scope of Data

    8.2   Types of Data in Finance and Costing

    8.3   Digitization of Data and Information

    8.4   Transformation of Data to Decision Relevant Information

    8.5   Communication of Information for Quality Decision-making

    8.6   Professional Skepticism regarding Data

    8.7   Ethical Use of Data and Information

9. **Data Processing, Organisation, Cleaning and Validation**

    9.1   Development of Data Processing

    9.2   Functions of Data Processing

    9.3   Data Organization and Distribution

    9.4   Data Cleaning and Validation

10. **Data Presentation: Visualisation and Graphical Presentation**

    10.1   Data Visualisation of Financial and Non-financial Data

    10.2   Objective and Function of Data Presentation

    10.3   Data Presentation Architecture

    10.4   Dashboard, Graphs, Diagrams, Tables, Report Design

    10.5   Tools and Techniques of Visualisation and Graphical Presentation

11. **Data Analysis and Modelling**

    11.1   Process, Development and Types of Data Analysis

    11.2   Data Mining and Implementation of Data Analysis

    11.3   Analytics and Model Building (Descriptive, Diagnostic, Predictive, Prescriptive)

    11.4   Standards for Data Tagging and Reporting (XML, XBRL)

    11.5   Cloud Computing, Business Intelligence, Artificial Intelligence, Robotic Process Automation and Machine Learning

    11.6   Model vs. Data-driven Decision-making