

FINANCE MANAGEMENT

Subject Code	: 10ME767	IA Marks	: 25
Hours/Week	: 04	Exam Hours	: 03
Total Hours	: 52	Exam Marks	: 100

PART – A

UNIT - 1

Introduction To Financial Management: Forms of organization, direct and indirect taxes. Statutory Registration- excise Duty, central sales tax, VAT, service tax, international fund availability.

06 Hours

UNIT - 2

Risk And Required Return: Risk and return relationship, methods of measuring the risk, Business risk, financial risk, calculation of expected rate of return to the portfolio, numerical problems.

06 Hours

UNIT - 3

Working Capital Management: Definition, need and factors influencing the working capital requirement. Determination of operating cycle, cash cycle and operating cycle analysis. Calculation of gross working capital and net working capital requirement.

07 Hours

UNIT - 4

Long Term Financing: Raising of finance from primary and secondary markets. Valuation of securities, features of convertible securities and warrants. Features of debt, types of debt instruments, return on investment(ROI) and credit rating of units. Shares, debentures.

07 Hours

PART – B

UNIT - 5

Introduction: Book keeping – systems of book keeping, journal and ledger posting. Financial Statement, Preparation of Trial balance, profit and Loss Account, Balance Sheet with adjustments.

07 Hours

UNIT - 6

Ratio Analysis / Accounting Ratio: Liquidity ratio – Current ratio, quick ratio, turnover ratio, capital structure ratio- Debt – equity ratio, Coverage ratio, Profitability ratio, Profit margin, Return on assets, Activity ratios – Inventory turnover ratio, Debtors Turnover ratio. Preparation of the balance sheet from various ratios. Analysis of any one published balanced sheet.

07 Hours

UNIT - 7

Costing: Classification of cost, preparation of cost sheet, absorption and variable costing, job costing, process costing. Classification of the variances analysis – material, labour and overhead variances.

06 Hours

UNIT - 8

Budgeting: Types of budgets – Flexible budgets, preparation of cash budgets, purchase and production budgets and master budget, Budgetary control, advantages & limitations of budgeting.

06 Hours

TEXT BOOKS:

1. **Financial Management**, Khan & Jain, text & problems, 5th Ed., TMH ISBN 0-07-460208-A. 20001
2. **Financial Accounting, Costing and Management Accounting**, S. M. Maheshwari, 2000

REFERENCE BOOKS:

1. **Financial Management**, I. M. Pandey, Vikas Publication House ISBN 0-7069-5435-1. 2002
2. **Financial Management**, Abrish Gupta, Pearson.
3. **Financial Decision Making**, Humpton. 2000
4. **Financial Management**, Theory and Practice, Prasanna Chandra TMH ISGN -07-462047-9, 3rd edition 2002

MICRO AND SMART SYSTEMS TECHNOLOGY

Subject Code	: 10ME768	IA Marks	: 25
Hours/Week	: 04	Exam Hours	: 03
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PART – A**UNIT - 1****Introduction To Micro And Smart Systems:**

- a) What are smart-material systems? Evolution of smart materials, structures and systems. Components of a smart system. Application areas. Commercial products.
- b) What are microsystems? Feynman's vision. Micromachined transducers. Evolution of micro-manufacturing. Multi-disciplinary aspects. Applications areas. Commercial products.

05 Hours**UNIT - 2****Micro And Smart Devices And Systems: Principles And Materials:**

- a) Definitions and salient features of sensors, actuators, and systems.
- b) Sensors: silicon capacitive accelerometer, piezo-resistive pressure sensor, blood analyzer, conductometric gas sensor, fiber-optic gyroscope and surface-acoustic-wave based wireless strain sensor.
- c) Actuators: silicon micro-mirror arrays, piezo-electric based inkjet print-head, electrostatic comb-drive and micromotor, magnetic micro relay, shape-memory-alloy based actuator, electro-thermal actuator
- d) Systems: micro gas turbine, portable clinical analyzer, active noise control in a helicopter cabin

08 Hours