

**Unit I****Chapter 1 : Construction Economics****1-1 to 1-26**

**Economics** : definition, principles, importance in construction industry, assets, liabilities, balance sheet, numerical on preparation balance sheet, profit and loss account, difference between microeconomics and macroeconomics, basic economic problems.

**Construction Economics** : structure of construction industry, economics of road and buildings, irrigation and power, ports and aviation.

1.1	Introduction to Economics.....	1-1
1.1.1	Principles of Economics.....	1-3
1.1.2	Importance of Economics in Construction Industry .....	1-5
1.2	Balance Sheet.....	1-9
1.2.1	Assets.....	1-9
1.2.2	Liabilities.....	1-11
1.2.3	Format / Examples of Balance Sheet.....	1-12
1.2.4	Functions of a Balance Sheet.....	1-15
1.2.5	Limitations of Balance Sheet .....	1-15
1.3	Profit and Loss Account.....	1-15
1.4	Microeconomics and Macroeconomics .....	1-16
1.4.1	Microeconomics .....	1-16
1.4.2	Macroeconomics .....	1-17
1.4.3	Difference between Microeconomics and Macroeconomics .....	1-18
1.5	Basic Economic Problems .....	1-18
1.6	Overview of Construction Industry in India.....	1-19
1.6.1	Structure of Construction Industry .....	1-21
1.6.2	Construction Economics.....	1-22
1.6.3	Economics of Road and Building .....	1-22
1.6.4	Economics of Irrigation .....	1-23
1.6.5	Economics of Power Generation.....	1-24
1.6.6	Economics of Ports .....	1-25
1.6.7	Economics of Aviation .....	1-25

**Unit II****Chapter 2 : Introduction to Financial Management****2-1 to 2-26**

Long- and short-term sources of finance, equity, debt government grants and alternative sources, numerical on calculation of leverage ratio, EBIT and dividend pay-out, financial market and instruments: money, market, secondary market, credit, bill and income security market ; goal of financial management, key activities in financial management, role of financing institutes in construction sector: banking institutions, NBFC, housing finance institutions and others.

2.1	Introduction to Financial Management.....	2-1
2.1.1	Scope of Financial Management.....	2-2
2.1.2	Goal of Financial Management.....	2-4
2.1.3	Functions of Financial Management .....	2-4
2.2	Sources of Finance .....	2-6
2.2.1	Short term Sources of Finance.....	2-7
2.2.2	Long Term Sources of Financing .....	2-10
2.2.2.1	Equity.....	2-11
2.2.2.2	Debt .....	2-12
2.2.3	Hybrid Financing/Other Sources .....	2-14
2.2.3.1	Government Grants .....	2-15
2.3	Financial Ratio - Leverage, EBIT, Dividend Payout.....	2-16
2.3.1	Leverage Ratio .....	2-16
2.3.2	EBIT Ratio.....	2-17
2.3.3	Dividend Payout Ratio.....	2-17
2.4	Financial Markets.....	2-18
2.4.1	Money Market .....	2-18
2.4.2	Money Market Instruments .....	2-19
2.4.3	Secondary Market .....	2-20
2.5	Role of Financial Institutions in Construction Finance .....	2-22
2.5.1	Types of Financial Institutions .....	2-22
2.5.2	Major Functions of Commercial Banks .....	2-23
2.5.3	Non-Banking Financial Company (NBFC).....	2-24
2.6	Housing Finance Companies .....	2-25
2.6.1	Other NBFCs.....	2-25

**Unit III****Chapter 3 : Contract Costing****3-1 to 3-19**

Construction financial management, Role of financial manager in construction financial management, Meaning and features of contract costing, Types of contract and contract costing Procedures, Contract account: Definition, Format/ Specimen of contract account, Treatment of various item in contract account, Methods of recordings and Reporting site account between project office and head office.

3.1	Financial Management.....	3-1
3.2	Role of Financial Manager in Construction Financial Management .....	3-3
3.3	Contract Costing .....	3-4
3.3.1	Features of Contract costing.....	3-5
3.3.2	Difference between Job Costing and Contract Costing.....	3-5
3.3.3	Types of Contracts in Contract Costing.....	3-6
3.3.4	Contract Costing Procedures.....	3-6
3.4	Contract Account.....	3-8
3.4.1	Format/ Specimen of Contract Account .....	3-9
3.4.2	Meaning of All the Items of the Contract Account.....	3-10
3.4.3	The Treatment of the Various Items .....	3-11
3.4.4	Methods of Recording and Reporting Site Account Between Project Office and Head Office .....	3-12
3.4.5	Profit on Incomplete Contracts .....	3-14
3.4.6	Numerical Examples .....	3-17

**Unit IV****Chapter 4 : Capital Budgeting****4-1 to 4-24**

**Capital Budgeting** : Budget, types of budgets, master budgets, cost estimating and budgeting in civil engineering project, definition of capital budgeting, time value of money, simple and compound interest, numerical on computation of interest, rule of 72, process of capital budgeting, techniques of capital budgeting, economic decision making in construction project, depreciation, different methods to calculate depreciation and numerical on it, impact of depreciation in economic decision making.

4.1	Introduction to Budget .....	4-1
4.1.1	Types of Budgets, Master Budgets.....	4-2
4.1.2	Cost Estimation and Budgeting Civil Engineering Project .....	4-4
4.2	Capital Budgeting.....	4-5
4.2.1	Process of Capital Budgeting.....	4-6
4.2.2	Importance of Capital Budgeting.....	4-7



4.3	Concept of Time Value of Money .....	4-7
4.3.1	Future Value .....	4-8
4.3.2	Simple Interest and Concept of Compounding .....	4-8
4.3.3	One-time Investing/Lump Sum Investing .....	4-8
4.3.4	The "Rule of 72" .....	4-11
4.4	Investment Appraisal - Capital Budgeting Techniques .....	4-11
4.4.1	Payback Period .....	4-12
4.4.2	Discounted Payback Period .....	4-13
4.4.3	Net Present Value Method (NPV) .....	4-14
4.4.4	Internal Rate of Return (IRR) .....	4-15
4.4.5	Profitability Index (PI) .....	4-16
4.4.6	Economic Decision Making in Construction Project .....	4-17
4.5	Depreciation .....	4-18
4.5.1	Straight-Line Depreciation Method .....	4-20
4.5.2	Double Declining Balance Depreciation Method .....	4-20
4.5.3	Economic Depreciation .....	4-23

## Unit V

### Chapter 5 : Working Capital

**5-1 to 5-22**

*Meaning, types of working capital, components of working capital, operating cycle, factors affecting working capital requirement, working capital management, estimation of working capital, components of working capital in Construction Company, inventory management techniques and financing resources of working capital.*

5.1	Introduction to Working Capital .....	5-1
5.1.1	Types of working Capital .....	5-2
5.1.2	Need of Working Capital .....	5-4
5.1.3	Components of Working Capital .....	5-4
5.1.4	Operating Cycle .....	5-4
5.1.5	Characteristic of Working Capital .....	5-5
5.1.6	Importance of Working Capital .....	5-6
5.1.7	Objectives of Working Capital .....	5-6
5.1.8	Sources/Financing Resources of Working Capital .....	5-6
5.1.9	Working Capital Management and Importance .....	5-8
5.1.10	Factors Affecting Working Capital Needs .....	5-8



5.1.11	Working Capital Management Strategy .....	5-10
5.1.12	Estimation of Working Capital Requirement .....	5-11
5.2	Components of Working Capital Management .....	5-13
5.2.1	Management of Inventories .....	5-14
5.2.2	Inventory Management Techniques .....	5-14
5.2.3	Inventory Control Systems .....	5-19

## Unit VI

### Chapter 6 : Taxation and Financial Regulatory Bodies

**6-1 to 6-21**

**Taxation and Financial Regulatory Bodies** : Introduction to direct and indirect tax, GST, impact of GST on construction industry, tax exemption for contractors, property tax: types, methods of calculation and numerical on computation of property tax, tax deductions against income from property, corporate tax planning, financial regulatory bodies: role and functions, ICRA (Information and Credit Rating Agency of India), SEBI (Security and Exchange Board of India), IRDA (Insurance Regulatory and Development Authority) and RBI (Reserve Bank of India).

6.1	Introduction to Direct and Indirect Tax .....	6-1
6.1.1	Direct Taxes .....	6-2
6.1.2	Indirect Tax .....	6-3
6.1.3	Goods and Services Tax (GST) .....	6-4
6.1.4	Property Tax .....	6-9
6.1.4.1	Methods of Calculation of Property Tax .....	6-10
6.1.5	Income from Property .....	6-13
6.1.6	Tax Deductions under Section 24 .....	6-14
6.1.7	Tax Deduction under Section 80C .....	6-15
6.1.8	Capital Gains Tax on Property .....	6-16
6.1.9	Corporate Tax Planning .....	6-17
6.2	Financial Regulators .....	6-18
6.2.1	Reserve Bank of India (RBI) .....	6-19
6.2.2	Securities and Exchange Board of India (SEBI) .....	6-19
6.2.3	Insurance Regulatory and Development Authority of India (IRDAI) .....	6-20
6.2.4	Information and Credit Rating Agency of India (ICRA) Limited .....	6-20