

B.Tech – 3rd Yr / 5th Sem

ECONOMICS FOR ENGINEERS (HMTS – 3101)
Session Plan (Module 1, 2, 3 & 4)

Module 1: (6L)

- ✓ **A. Market:** Meaning of Market, Types of Market, Perfect Competition, Monopoly, Monopolistic and Oligopoly market.
 - a. Meaning of market with divisions
 - b. Perfect competition, monopolistic competition, oligopoly, duopoly & monopoly – meaning, characteristics, differences
- ✓ **B. The basic concept of economics – needs, wants, utility.**
 - a. Definition of Economics as evolved over time
 - b. Unlimited wants & scarce means
 - c. Basic concept what is micro & macro
 - d. Central problem of economics – what to produce, for whom to produce, how to produce
 - e. Some basic concepts – wealth, production, consumption, income, saving, investment, utility, marginal utility
- ✓ **C. Demand & Supply, Law of demand, Role of demand and supply in price determination, Price Elasticity.**
 - a. Demand – meaning & definition
 - b. Law of demand – explanation with graph; exceptions to law of demand
 - c. Supply – meaning & definition;
 - d. Law of supply – explanation with graph; exceptions to law of supply
 - e. Price determination – equilibrium price & output graphical explanation
 - f. Effect of change demand and/or supply on price and output
 - g. Elasticity of demand – determinants
 - h. Price elasticity - types & application
 - i. Income elasticity and cross elasticity – explanation

National Income-

 - a. GNP, NNP, GDP
 - b. Distinction between GNP & GDP
 - c. Measurement of national income – product, income, expenditure method
 - d. Usefulness of NI estimates
- ✓ **D. Inflation: meaning, reasons, etc.**
 - a. Inflation – meaning
 - b. Demand-pull & cost-push inflation
 - c. Impacts of inflation
 - d. Control of inflation - measures

Module 2: (4L)

- A. Business:** Types of business, Proprietorship, Partnership, Joint-stock company, and cooperative society
 - a. Explanation, characteristics
- B. Banking:** role of commercial banks; credit and its importance in industrial functioning.
 - a. What is a commercial bank
 - b. Basic business model of taking deposits and giving loans at higher interest rates. NPA and its impact
 - c. Functions of commercial banks
- C. Role of central bank:** Reserve Bank of India.
 - a. Need for Central bank
 - b. Functions of RBI
- D. International Business or Trade Environment.**
 - a. What is international trade
 - b. Benefits of international trade
 - c. Balance of trade and Balance of payment concepts
 - d. Brief scenario of India's foreign trade
 - e. ~~WTO~~ / ~~WIE~~, ADB – purpose and functions

Module No.	Topic	Coverage
3A.	Journal	<ul style="list-style-type: none"> Book keeping and Accounting - explanation Journal - meaning and purpose Types of Accounts & Golden Rule
3A.	Ledger	<ul style="list-style-type: none"> Numerical problems on Journal Ledger - meaning and purpose Balancing of Ledger accounts from Journal solved in class
3A.	Trial Balance	<ul style="list-style-type: none"> Numerical problems on Ledger Trial Balance - meaning and purpose Errors disclosed and not disclosed by TB Preparation of TB from Ledger solved in class
3A.	P&L A/c and Balance Sheet	<ul style="list-style-type: none"> Trading and P&L A/c - meaning and purpose Balance Sheet - meaning & purpose P&L A/c and BS from TB solved in class
3A.	Final Accounts	<ul style="list-style-type: none"> Preparation of Final Accounts with basic adjustments-closing stock, depreciation, prepaid/outstanding expenses, provision for bad debts.
3B.	Ratio Analysis	<ul style="list-style-type: none"> Purpose & benefits Types of Ratios <ul style="list-style-type: none"> Liquidity ratios (current/quick) Turnover ratios (Inventory/total asset /debtors) Profitability ratios (Net Profit margin/Gross Profit margin/ROI/ROE) Capital structure ratios (Debt-Equity) Market ratios (PE) Numerical problems
3B.	Cash Flow Analysis	<ul style="list-style-type: none"> Cash Flow Statement - meaning and purpose Simple example with opening/closing balance sheets
3C.	Cost Accounting - basic	<ul style="list-style-type: none"> Cost Accounting - scope and objectives Classification of cost (variable, fixed, semi-variable)
3D.	Cost Sheet	<ul style="list-style-type: none"> CVP terminology, break even point (concept, utility, ways to lower, graph) Meaning and purpose Format of Cost Sheet Numerical problems
3D.	Budgeting	<ul style="list-style-type: none"> Meaning, benefits, types-operating/capital/cash/master
3D.	Variance analysis	<ul style="list-style-type: none"> Cash Budget - explanation and problems Flexible budget - benefits & problems Meaning and purpose
3E.	Decision making	<ul style="list-style-type: none"> Material, Labour, variance - explanation and basic problems Selling at lower price/make or buy-considering non-cost factors Numerical problems

Cost volume Profit

Time Value of Money

- Meaning and significance
- Compounding and discounting
- Present value, Future Value – formula & problems
- Annuity & perpetuity – formula & problems

4B. Equity and debt

- Basic concept
- Difference between the two
- Meaning

4B. Cost of capital

- Calculation of WACC – problems
- Meaning and need (importance of capex and its evaluation)
- Concept of discounting of cash flows

4C. Capital Budgeting

- Project appraisal
 - ARR, PBP
 - NPV, PI (or BCR), NBCR
 - IRR
 - Numerical problems on all of the above
- Purpose
- Methods of calculation
 - SLM, WDV, Sum of the digits
 - Numerical problems

4D. Depreciation

4D. Replacement Analysis

- Basic concept

Sensitivity analysis

- Basic concept



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