

ENGINEERING ECONOMICS

Written by Administrator
Sunday, 01 November 2009 10:47 -

Subject Code

:

06ME56

IA Marks

:

25

No. of Lecture Hrs./ Week

:

04

Exam Hours

:

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03

Total No. of Lecture Hrs.

:

52

Exam Marks

:

100

PART - A

Unit - 1

Introduction: Engineering Decision-Makers, Engineering and Economics, Problem solving and Decision making, Intuition and Analysis, Tactics and Strategy. Engineering Economic Decision, Maze. Law of demand and supply, Law of returns, Interest and Interest factors: Interest rate, Simple interest, Compound interest, Cash - flow diagrams, Personal loans and EMI Payment, Exercises and Discussion.

8 Hours

Unit - 2

Present-Worth Comparisons: Conditions for present worth comparisons, Basic Present worth comparisons, Present-worth equivalence, Net Present-worth, Assets with unequal lives, infinite lives, Future-worth comparison, Pay-back comparison, Exercises, Discussions and problems.

6 Hours

Unit - 3

Equivalent Annual-Worth Comparisons: Equivalent Annual-Worth Comparison methods, Situations for Equivalent Annual-Worth Comparisons, Consideration of asset life, Comparison of assets with equal and unequal lives, Use of shrinking fund method, Annuity contract for guaranteed income, Exercises, Problems.

6 Hours

Unit - 4

Rate-of-Return Calculations and Depreciation: Rate of return, Minimum acceptable rate of return, IRR, IRR misconceptions, Cost of capital concepts. Causes of Depreciation, Basic methods of computing depreciation charges, Tax concepts, corporate income tax.

6 Hours

PART - B

Unit - 5

Estimating and Costing: Components of costs such as Direct Material Costs, Direct Labor Costs, Fixed Over-Heads, Factory cost, Administrative Over-Heads, First cost, Marginal cost, Selling price, Estimation for simple components.

5 Hours

Unit - 6

Introduction, Scope of finance, Finance functions: Statements of Financial Information: Introduction, Source of financial information, Financial statements, Balance sheet, Profit and Loss account, relation between Balance sheet and Profit and Loss account. Simple Numericals

8 Hours

Unit - 7

Financial Ratio Analysis: Introduction, Nature of ratio analysis, Liquidity ratios, Leverage ratios, Activity ratios, Profitability ratios, Evaluation of a firm's earning power. Comparative statements analysis. Simple numericals

6 Hours

Unit - 8

Financial and Profit Planning: Introduction, Financial planning, Profit planning, Objectives of profit planning, Essentials of profit planning, Budget administration, type of budgets, preparation of budgets, advantages, problems and dangers of budgeting. Introduction to Bench Marking of Manufacturing Operation.

7 Hours

TEXT BOOKS:

1. **Engineering Economy**, Riggs J.L., , McGraw Hill, 2002
2. **Engineering Economy**, Thuesen H.G. PHI , 2002

REFERENCE BOOKS:

1. **Engineering Economy**, Tarachand, 2000.
2. **Industrial Engineering and Management**, OP Khanna, Dhanpat Rai & Sons. 2000
3. **Financial Management**, Prasanna Chandra, TMH, 2004
4. **Finacial Management**, IM PANDEY, Vikas Publisahing House, 2002