

***COMPLEMENTARY STUDIES
SYLLABUS OF EXAMINATIONS
1998 EDITION***

For textbook information please refer to the **Textbooks** section on page 3 of the document entitled **Information for Students and Examinations Candidates**.

98-CS-1 Engineering Economics

Basic concepts of engineering economics through understanding of the theoretical and conceptual financial project analysis. Types and applications of Engineering Economic Decisions. Capital, cash flow, and the time value of money concepts. Nominal and Effective Interest rates when considering loans, mortgages, and bonds. The application of Present Worth Analysis, Annual Equivalent Analysis and Rate of Return Analysis in evaluating independent projects, comparing mutually exclusive projects, analyzing lease vs. buy alternatives and making decisions. After - Tax Financial Analysis requiring an understanding of Capital Cost Allowance (Depreciation) and Corporate Income Tax. Measurement of inflation, incorporation of inflationary effects. Understanding methods of Financing and Capital Budgeting. Break-even, sensitivity and risk analyses.

98-CS-2 Engineering in Society - Health, Safety, and the Environment

Concepts and consideration of health, safety, and the environment, both current and future. Awareness of the work place environment with consideration to light, temperature, humidity, air flow, noise, and dust control. Rules and regulations relating to the work place environment. Emergency procedures due to fire, toxic gas, or chemical contamination. An examination of various systems to prevent environmental damage to air, water, and ground systems outside of the work place environment. Overall awareness of environmental considerations. The role and responsibilities of an engineer from a professional ethics viewpoint.

98-CS-3 Management Concepts for Engineers

Introduction to Management Concepts and their impact upon social and economic aspects of society. Historical look at management since the industrial revolution and its impact upon society. Topics should include: Labour Relations, Human Resource Development, Marketing, Production Concepts, Financial Management, and Quality Management.

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