EE-287 Engineering Economics

Lecture Title:

Terminology & Symbols

Instructor:

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Terminology (i.e. Various EE Terms) & Symbols (i.e. Term Representation)

The Equations and Procedures of EEy utilize the following terms & symbols

(1) P = Present Value (i.e. Value of money at t = 0)

Also referred to as:

PW   (Present Worth)
PV   (Present Value)
NPV   (Net Present Value)

(2) F = Future Value (i.e. Value of money at an instant in future)

Also referred to as:

FW   (Future Worth)
FV   (Future Value)

(3) A = Annual Value or Annual Worth (i.e. Worth of assets after a year)

Terminology (i.e. Various EE Terms) & Symbols (i.e. Term Representation) Continued….

(4) n = Number of Interest Periods (i.e. years, months, weeks, days and so on)

(5) i = Interest Rate (i.e. per year, per month, per week, per day and so on)

(6) t = time (stated in periods i.e. years/months/weeks/days etc.)

Important Points to Remember

(A)   The symbols P and F represent one-time occurrences.

(B)   A occurs with the same value each interest period for a specified number of periods.

(C)   It should be clear that a present value P represents a single sum of money at some time prior to a future value F.

Example 1 & 2

A new University graduate gets a job at PTCL and plans to borrow Rs.10,00,000/- to help buy a car. She has arranged to repay the Principal plus 8% per year interest after 5 years.

Required: Identify the symbols required.

Symbols:
P = Rs.10,00,000/-
i = 8% per year
n = 5 years
F = Future amount = ?

Assume you borrow Rs.200,000/- at 7% per year for 10 years and must repay the loan in equal payments. Determine the symbols involved and their values.

Symbols & Values:
P = Rs.2,00,000/-
i = 7% per year
n = 10 years
A = Annual Value = ?

In the above examples, P is a receipt to the borrower while F or A is a disbursement from the borrower.

Thank You for listening