

Department of Humanities
VSSUT, BURLA

Subject: Engineering Economics and Costing

Credit : 4-0-0

Semester: 3rd sem/4th sem.
MSC/MCA

Branch: B.Tech/ Integrated

Lesson Plan

Class No	Topics	Total No. Of Classes
Module: -1		
1	Introduction to Engineering economics; Role of Time; Value of Time; Interest rate; Types of inters rate; Simple, Compound, effective, continuous effective; Concept of annuity Defining Time Value of Money	11
2	Exercise on Interest rates; Cash flow transactions- Meaning; Types	
3	Compound Interest factors- Meaning; Types	
4	Compound Interest factors- Examples and exercise	
5	Time value equivalence and calculation- Exercise	
6	Present worth comparisons- Meaning; Necessity; Conditions; Methods	
7	Present worth comparisons- Applications: equal, unequal lives	
8	Contd.. Infinite lives; Excercise	
9	Future worth comparisons- Meaning, Conditions, Examples and excercise	
10	Payback period comparison- Meaning; Examples, Short comings; Need of Discounted Payback period; Excercise	
11	Surprise Test	
Module: -2		
12	AEW comparison method- Meaning; conditions; steps; applications	10
13	AEW comparison method: Exercise	
14	Rate of return- IRR, MARR and ERR; Calculation of IRR	
15	Methods: Direct and Trial and Error method	
16	NPV and IRR (Discussion)	
17	Analysis of Public Projects (B-C Analysis)- Background; Meaning; Types of method; B-C analysis- Meaning; Characteristics; assumptions	
18	Contd..] Enumeration and Quantification of Benefits and costs Factors affecting Benefits and costs; Critiques;	
19	Contd...] Problem solving	
20	Cost effectiveness analysis- Meaning; necessity; Steps;	
21	Exercise on C- E analysis	

Class No	Topics	Total No. Of Classes
Module: -3		
22	Depreciation- Meaning, Characteristics, Causes	10
23	Calculation- Methods- Straight line and declining balance	
24	Double Declining balance method- Exercise	
25	MACRs method- Exercise	
26	After Tax comparison- Brief idea about Tax system ; Problem solving	
27	Break-even Analysis- Meaning; Introduction to cost concepts; Types; Types of BEA- Linear and Non-linear	
28	Break-even Analysis- Graphical and algebraic method; Linear BEA	
29	Non-linear BEA- Calculation	
30	Sensitivity analysis- Meaning; assumption; Types; Methods; Single parameter SA- Exercise	
31	Multiple-parameter SA- Exercise	
Module: -4		
32	Cost- Meaning; Fixed and Variable, Costing-Meaning; Product costing	10
33	Product costing- Meaning; Steps ; Cost sheets; exercise	
34	Cont.. Product costing- Cost sheets	
35	Process costing: Meaning; Cost sheet	
36	Contd... Process costing- with loss and gain	
37	Cost control- Meaning; characteristics; Steps; Techniques- Budgetary Control and standard costing	
38	Standard Costing- Meaning; types of standards, steps	
39	Cost reduction- Meaning, features, Techniques	
40	Variance analysis- meaning; types	
41	Variance analysis- Exercise	