

LESSON PLAN

Subject Name: **Mathematics for Managers**

Lecture hours: **60**

OBJECTIVE: To make students understand the need for maths and its real world application in the field of commerce by questioning, visualizing, understanding and connecting various math concepts.

Sl. No	UNITS	No. of Lecture Hours	Methodology	Evaluation
UNIT I	BASIC MATHEMATICAL CONCEPTS	10		
	Theory of equations and application of equations to business and	3	Lecture (concepts, visualization(Should be able to answer

1.	commerce		graphs)) and problems	conceptual questions and solve problems
2.	Ratios and proportions (Basic laws of ratios, continued, direct, inverse, compound and mixed proportions)	3	Lecture(concepts) and problems	Should be able to solve problems
3.	Percentage(Application in business and commerce), Profit and loss, simple discount.	4	Lecture(concepts) and problems	Should be able to solve problems
UNIT II	INTEREST	10		
1.	Simple interest, Compound Interest , Concept of Time value of money	4	Lecture(concepts) and problems	Should be able to answer conceptual questions and solve problems
2.	FV of a single amount, Doubling period	3	Lecture(concepts) and problems	Should be able to answer conceptual questions and solve problems

3.	Growth rate, PV of a single amount, PV of uneven series	3	Lecture(concepts) and problems	Should be able to answer conceptual questions and solve problems
UNIT III	ANNUITIES	10		
1.	Annuity immediate -FV of Annuity(Application), Sinking Fund, Depreciation PV of Annuity (Application)	3	Lecture(concepts) and problems	Should be able to answer conceptual questions and solve problems
2.	Loan amortisation schedule, relating compound interest formula to PV annuity formula, Capital Recovery Factor	3	Lecture(concepts) and problems	Should be able to answer conceptual questions and solve problems
3.	PV of growing annuity, annuity due, PV of perpetuity, Deferred Annuity Intra-year compounding and discounting, Effective Vs Stated Rate	4	Lecture(concepts) and problems	Should be able to answer conceptual questions and solve problems
UNIT IV	BILLS OF EXCHANGE AND CONVERSION OF FOREIGN CURRENCY	8		

1.	Bills of Exchange- Meaning of face value of Bills, true present worth, True discount value, date of drawing, banker's gain, banker's discount of a bill, foreign currency-direct and indirect quotes	8	Lecture(concepts) and problems	Should be able to answer conceptual questions and solve problems
UNIT V	LEARNING CURVE	10		
1.	Meaning, Learning curve ratios, Linear equations	5	Lecture (concepts, visualization(graphs)) and problems	Should be able to answer conceptual questions and solve problems
2.	Forecasting of cost and An Impact on profit using curve learning	5	Lecture (concepts, visualization(graphs)) and problems	Should be able to answer conceptual questions and solve problems
UNIT VI	INTRODUCTION TO DIFFERENTIATION	12		
1.	Functions, Derivatives- Standard forms, sum and product of two functions	4	Lecture (concepts, visualization(graphs))	Should be able to answer conceptual questions

2.	Application of differentiation	2	Illustrations and problems	Should be able to solve problems
3.	Secondary derivatives and maxima and minima	3	Lecture (concepts, visualization(graphs))	Should be able to answer conceptual questions
4.	Application in Commerce- Cost function, Revenue function, Profit function, Break-Even Point(problems)	3	Illustrations and problems	Should be able to apply concept to solve problems
1.	CIA 1 on Unit II(In 1 st week of July)	1	MCQs and problems	Written test
2.	CIA 2 on Unit IV(In last week of August)	1	MCQs and problems	Written test

Prepared By:

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