

102- Business Mathematics

Theory Credits:3

Lab Credits:1

Objective:

To create an aptitude for mathematics in students who are pursuing computer education It will help to increase the confidence of students to equip themselves with mathematics.

Sr. No.	Topic Name	No. Of Hrs
01.	Percentage	04
	Meaning, Practical use and computation of percentages.	
02.	<u>Ratio, Proportion and Variation:</u>	04
	Inverse ratio, continued ratio. Direct Proportion and inverse proportion. Application to partnership.	
03.	Profit and Loss	06
	Problems involving cost price, selling price, marked price trade discount and cash discount	
04.	<u>Commission and Brokerage:</u>	10
	Rate of commission, types of commission agents, problems.	
05.	Simple and compound interest	10
	Concept of principle rate of interest, period and amount by simple and compound interest. Calculation of compound interest when compounded quarterly, half yearly and annually.	
06	Bills of Exchange	04
	Sum due, present value, period of the bill, rate of interest, types of discount, bankers gain. Problems.	
07	Simple Annuity	06
	Simple annuity (time span) status annuity, certain annuity, Annuity contingent, perceptual annuity, Amount of annuity, Present value of annuity. Annuity due and immediate annuity	

08	Matrices Definition, properties, matrix algebra, matrices, vectors, determinants and linear system of equations, matrices and linear system of equations, rank of matrix, concept of basic variables, nonbasic variables, degenerate and nondegenerate solutions to system of linear equations, symmetric, skew symmetric and orthogonal matrices.	10
09	Permutation and combination,	06
	Total	60

Reference Books:

- a) Fundamentals of Mathematics by A.K. Aggarwal
- b) Commercial Mathematics and Statistics by R.J. Shah
- c) Business Mathematics by S.A. Bari
- d) Commercial Arithmetic and Statistics by A.K. Mahajan, P.R. Pable, J. Date, A Telang
- e) Commercial Arithmetic & statistics by Chirputkar, Kulkarni & Kapre