

**ST. JOSEPH'S FIRST GRADE COLLEGE, HASSAN**  
**(Affiliated to the University of Mysore)**

**LESSON PLAN 2018-2019**

**Quantitative Techniques I (4 Hours per week)**

**CLASS : IV SEM B B A**

**Prepared by:**

**Pradeep Kumar V**

**Objectives of the Subject:** *To introduce the students about basic mathematics and their application in Business .*

<b>UNIT/ SESSION/ HOURS (TIME REQUIRED)</b>	<b>TOPICS FOR STUDENT PREPARATION (INPUT)</b>	<b>PROCEDURE (PROCESS)</b>	<b>LEARNING OUTCOME (OUTPUT)</b>	<b>ASSESSMENT</b>
<b>MODULE 1: Indices and logarithms 12 Hr.</b>	Introduction meaning – basic laws and their application simplification, Laws of logarithms – common logarithms application of log table for simplification	Lecture Discussion Problems solving	To understand Concepts indices and logarithms and their practical business application	Descriptive Test, MCQ
<b>MODULE 2: Progression 12 Hrs.</b>	Progression meaning – sequences, types of progression AP and GP general term. application problems on AP and GP	Lecture Discussion Problems solving	To understand the What is Progression, AP and GP and their practical business application	Descriptive Test, MCQ

<b>MODULE 3: Ration and proportions 10 Hrs.</b>	Ratio, proportion, variation and percentage and their application to business	Lecture Discussion Problems solving .	To explain the various rules of ratio and proportion and their practical business application	Descriptive Test, MCQ
	2 <sup>nd</sup> CIA			
<b>MODULE 4: Simple interest and compound interest 12 Hrs.</b>	Simple interest and compound interest – bill discounting meaning-concept of Banker discount, true discount, banker gain and present worth of bill	Lecture Discussion Problems solving	To understand the various types of interest their calculation and solve all problems of bill discounting	Descriptive Test, MCQ
<b>MODULE 5: Matrices and determinants 14 Hrs.</b>	Matrices and determinants meaning and types of matrices, matrix operation addition, subtraction and multiplication. Determinants of a matrix and evaluation solution of liner equation by using cramer's rule	Lecture Discussion Problems solving	To familiarize the students with calculating matrices determinants and their practical business application	Descriptive Test, MCQ
	3 <sup>rd</sup> CIA			

**MODULE WISE LESSON PLAN**

**HOUR WISE LESSON PLAN**

**Subject: Quantitative Techniques**

**Lecture Hours: 60 Hrs.**

<i>Sl. No.</i>	<i>Unit &amp; Objectives</i>	<i>No. of LH</i>	<i>Methodology/ Instructional Techniques</i>	<i>Evaluation</i>
<b>Module 1.</b>	<b>Indices and logarithms</b>	<b>12</b>		<b>Question &amp; Answer, Tests</b>
1.	Introduction	2	Lecture and Illustrations.	
2.	Basic Concepts laws of indices	2	Lecture and Illustrations.	
3.	Application problems	2	Lecture and Illustrations.	
4.	Laws of logarithms	2	Lecture and Illustrations.	
5.	Application of log table	2	Lecture and Illustrations.	
6.	Revision/ Repetition of cases/ Cases/ Examples	2	Lecture and Illustrations.	
	1 <sup>st</sup> CIA			
<b>Module 2.</b>	<b>Progression</b>	<b>12</b>		<b>Question &amp; Answer, Tests</b>
1.	Introduction and meaning	2	Lecture and Illustrations.	

2.	Types of progression	3	Lecture and Illustrations..	
3.	Arithmetic progression problems	2	Lecture and Illustrations.	
4.	Geometric progression problems	2	Lecture and Illustrations.	
5.	Application problems on AP and GP	2	Lecture and Illustrations.	
6.	Revision/ Repetition of cases/ Cases/ Examples	1	Questions/ Viva	
<b>Module 3.</b>	<b>Ration and proportions</b>	<b>10</b>		<b>Question &amp; Answer, Tests</b>
1.	Introduction and meaning	2	Lecture and Illustrations.	
2.	Different types of ratio and application	2	Lecture and Illustrations.	
3.	Variation and percentage	2	Lecture and Illustrations.	
4.	Application to Business	2	Lecture and Illustrations.	
5.	Revision/ Repetition of cases/ Cases/ Examples	2	Questions/ Viva	
	2 <sup>nd</sup> CIA			
<b>Module 4.</b>	<b>Simple interest and compound interest</b>	<b>12</b>		<b>Question &amp; Answer, Tests</b>
1.	Introduction and meaning	2	Lecture and Illustrations.	
2.	Problems on simple interest	2	Lecture and Illustrations.	
3.	Problems on Compound interest	3	Lecture and Illustrations.	
4.	Problems on bill discounting	3	Lecture and Illustrations.	
5.	Revision/ Repetition of cases/ Cases/	2	Questions/ Viva	

	Examples			
<b>Module 5.</b>	<b>Matrices and determinants</b>	<b>14</b>		<b>Question &amp; Answer, Tests</b>
1.	Introduction and meaning	2	Lecture and Illustrations.	
2.	Different types of matrices	2	Lecture and Illustrations.	
3.	Matrix operation	3	Lecture and Illustrations.	
4.	Determinants of a matrix	3	Lecture and Illustrations.	
5.	Liner equation by cramer's rules	3	Lecture and Illustrations.	
6.	Revision/ Repetition of cases/ Cases/ Examples	1	Questions/ Viva	
	3 <sup>rd</sup> CIA			

### References:

1. **Dr. B H Suresh and Mahadevaswamy G.H, Quantitative Techniques, Nithya Publication, Mysore.**
2. **P.R Vittal: Business Mathematics**
3. **V.K Kapoor : Introductory to Business Mathematics**
4. **R.S Agarwal : Quantitative aptitude**
5. **R. H Dareshwar : Commercial Arthmetics.**

**Thanking You,**

**Yours Faithfully,**

**Pradeep Kumar V**