



GOVERNMENT OF TAMIL NADU

HIGHER SECONDARY FIRST YEAR

MATHEMATICS

VOLUME - II

A publication under Free Textbook Programme of Government of Tamil Nadu

Department of School Education

Untouchability is Inhuman and a Crime

Government of Tamil Nadu

First Edition - 2018

Revised Edition - 2019, 2020

(Published under New Syllabus)

NOT FOR SALE

Content Creation



State Council of Educational
Research and Training

© SCERT 2018

Printing & Publishing



Tamil NaduTextbook and Educational
Services Corporation

www.textbooksonline.tn.nic.in

CONTENTS

MATHEMATICS Volume-II

CHAPTER 7 – Matrices and Determinants

	P. No.	Month
7.1 Introduction	1	
7.2 Matrices	2	October
7.3 Determinants	20	

CHAPTER 8 – Vector Algebra

8.1 Introduction	47	
8.2 Scalars and vectors	49	
8.3 Representation of a vector and types of vectors	49	
8.4 Algebra of vectors	51	
8.5 Position vectors	56	October
8.6 Resolution of vectors	60	
8.7 Direction cosines and direction ratios	63	
8.8 Product of vectors	69	

CHAPTER 9 – Differential Calculus - Limits and Continuity

9.1 Introduction	86	
9.2 Limits	88	November
9.3 Continuity	118	

CHAPTER 10 – Differential Calculus - Differentiability and Methods of Differentiation

10.1 Introduction	135	
10.2 The concept of derivative	136	November
10.3 Differentiability and Continuity	144	
10.4 Differentiation rules	148	

CHAPTER 11 – Integral Calculus

11.1 Introduction	182	
11.2 Newton-Leibnitz Integral	184	
11.3 Basic Rules of Integration	186	
11.4 Integrals of the form $f(ax + b)$	188	December
11.5 Properties of Integrals	190	
11.6 Simple applications	192	
11.7 Methods of Integration	196	

CHAPTER 12 – Introduction to probability theory

12.1	Introduction	232	
12.2	Basic definitions	232	
12.3	Finite sample space	234	
12.4	Probability	237	
12.5	Some basic theorems on probability	247	December
12.6	Conditional probability	251	
12.7	Total probability of an event	259	
12.8	Bayes' Theorem	261	
ANSWERS		271	
GLOSSARY		281	
BOOKS FOR REFERENCE		283	



E-book



Assessment



DIGI links



Let's use the QR code in the text books!

- Download DIKSHA app from the Google Play Store.
 - Tap the QR code icon to scan QR codes in the textbook.
 - Point the device and focus on the QR code.
 - On successful scan, content linked to the QR code gets listed.
- Note:** For ICT corner, Digi Links QR codes use any other QR scanner.