

## Teaching and Examination Scheme

Teaching Scheme hrs/week		Examination Scheme					
Theory	Practical	Theory Marks	Duration	UT Marks	Pr. Marks	Or. Marks	TW Marks
03	01	40	02	10	--	--	--

Rationale: Mathematics is used at various levels in the process of Printing, which include, Copy-fitting methods, calculation of Paper & Ink consumption, Mathematical formulae for pre-press activities, costing & estimating and a lot more. All these processes require precision functioning, which can be carried out if mathematical calculations are known. This course also is a backbone of research & development of Technology.

Chapter	Name of the Topic	Hours	Marks
1.0 Integral calculus			
1.1	Definite integrals – definitions, upper & lower limits of integrals, evaluation of definite integrals.	08	10
1.2	Definitions and methods of resolving a proper and an improper fraction into partial fraction & integrals solved by Partial fractions method.		
2.0 Basic Statistics			
2.1	Definition of various statistical terms, to arrange the raw ungrouped data as a frequency distribution making use of class intervals, class marks, tally marks, frequencies.	24	20
2.2	Definition and evaluation of means, mode & standard deviation for a frequency distribution (ungrouped and grouped data) manually and using pocket calculator. Range, mean deviation, standard deviation, Variance & coefficient of variation.		
2.3	Graphical representation of above measures on graph papers manually and with the help of the computer graphics in the form of histogram, frequency polygon: Ogive curves and pie charts. Computer labs and calculator should be used frequently for statistical calculation and graphical representations.		
3.0 Complex number			
3.1	Definition of Complex number. Cartesian, polar, Exponential forms of Complex number.	16	10
3.2	Algebra of Complex number (Equality, addition, Subtraction, Multiplication and division)		

3.3	De-Movre's theorem (without proof) and simple problems.		
3.4	Euler's form of Circular functions, hyperbolic functions and relations between circular & hyperbolic functions.		
		48	40

### Reference Books

No.	Title of Book	Author	Publisher's Name
01	Engineering Mathematics Or Applied Mathematics For Diploma Engineering and Technology.	Chitale, Joshi	A New Approach To Mathematics And Statistics
02			Applied Mathematics, TTTI Chandigarh.
03			Mathematics For Technicians, TTTI, Chennai
04		S.P. Deshpande	Mathematics For Polytechnic Students.
05			Nirali Publishers, Pune
06			Vrinda Publisher's , Jalgaon
07			Phadke Publishers, Kolhapur
08			Tata Publishers, Nagpur