Pandit Deendayal Petroleum Uni				эт						
20BSM102T					Basic Mathematics - I (Group B)					
-	Teaching Scheme				Examination Scheme					Tatal
		Ρ	С	Hrs. / Week	MS	Theory ES	IA	LW	Practical LE/Viva	Total Marks
3 ()	0	3	3	25	50	25			100
COUF	SE (OBJ	ECTI\	/ES						
>				tudents acquaint				and functions.		
>		To familiarize the students with concept complex variables. To introduce the concept of matrix, determinants and their use to solve systems of equations.								
>				-				e to solve system	ns of equations.	
>				undamental differ strate concepts a		-		etrv.		
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JNIT	I SE	ETS,	RELA	TIONS, FUNCT	ONS AND	COMPLEX	NUMBERS	5		10 Hrs.
sets a	nd t	their								
		circii	repre	esentation. Union	, intersectio	on and comp	lement. M	apping or functi	ion. One-one, onto mappings.	Inverse and composite
mappi			repre	esentation. Union	, intersectio	on and comp	lement. M	apping or functi	ion. One-one, onto mappings.	Inverse and composite
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COURSE OUTCOMES

On completion of the course, student will be able to

CO1 – Apply set operations.

CO2 – Demonstrate the concepts of complex numbers

CO3 – Analyse the applications of determinants.

CO4 – Demonstrate basic matrix operations.

CO5 – Apply differential and integral calculus.

CO6 – Analyse two dimensional coordinate geometry.

TEXTS AND REFERENCES

- 1. G. B. Thomas and R.L. Finney, Calculus and analytical geometry, 9th ed., Pearson Education Asia (Adisson Wesley), New Delhi, 2000
- 2. NCERT, Mathematics Textbook for class XI and XII, 2009.
- 3. R.D. Sharma, Mathematics, Dhanpat Rai Publications, New Delhi, 2011.
- 4. M.D. Raisinghania, Ordinary and Partial Differential Equations by, 8th ed., S. Chand Publication, 2010.

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100	Exam Duration: 3 Hrs.
Part A: 6 questions of 4 marks each	24 Marks
Part B: 6 questions of 8 marks each	48 Marks
Part C: 2 questions of 14 marks each	28 Marks