Semester Lecture Plan

Name of the college: Government college of Arts Science and Commerce ,Sankhali								
Name of Faculty: Deepak Bandiwadekar			kar	Subject: Mathematics				
Paper code:	MTC 110 M	ETRIC SPAC	CES	Program/Course: TYBSC		Division:		
Academic y	ear: 2024- 202	25		Semester:VI		Total Lecture	es: 90	
Course Obj connectedno	Course Objectives: Acquaint students about concept of metric on sets & related properties like completeness, compactness & connectedness							
Expected course Outcome:at the end of the course student will understand the concept of metric , special points, open & closed sets & analysing variety of properties using these concepts on vector spaces								
Student learning outcome: The student will be able to know the distance function, interiors & boundary, exterior of a set. Will a develop sharp idea of limit point, , open & closed sets, use of sequential continuity , Open cover , connectedness & disconnectedness of sets								
Month	we From:	eek To:	No. of lecture s allotted	Topic, Subtopic to be covered	Exercises/ assignment	ICT Tools	Reference books	
December	9th	14 th	05	Introduction, Definition of Metric & Examples		Chalk & duster	Metric Spaces J.N.Sharma Metric spaces P.Jain & K.Ahmed	

	16 th	21 st	02			"
	10 th	21 50	02	Examples , Discrete metric		
January 25	2nd	4th	03	Open ball, Housdorff property		Real Analysis Shantinarayan & Dr. M.D. Raisinghania
	6 th	11th	06	Special points, open sets		
	13 th	18 th	06			
				Properties of open sets, closed sets,		
	20th	25 th	06	Properties of closed sets/subspaces		
January/ February	27 th	1st	06	Sequences, Cauchy Sequence, completeness		
	3rd	8th	06	Cantor's intersection thm, dense sets		
	10 th	15 th	06	Continuity , uniform continuity, homeomorphism, isometry		

	17th	22nd	06	
	1/11	2211u	UU	
				Contraction map, fixed point,
February/	24th	1st	06	
March				
				Fixed point theorem, initial value
				problems
		0.0	0.0	
	3rd	8th	UO	
				Compact metric space &
				properties
				properties
	10th	15 th	06	
				Properties continued
	17th	22md	06	
	1/11	22110	VO	
				Properties continued
	24th	29th	06	
				Connectedness & properties
March/	31ct	5th	06	
	5151	511	UU	
April				
				Properties continued

7th	11th	02			
			Properties continued & revision		

* Assessment Rubrics

Component	Max Marks
ISA 1	15
ISA 2	15
ISA 3	
Project	100
Semester End	
Exam	120