



VAGDEVI DEGREE COLLEGE

(Affiliated to Acharya Nagarjuna University)

(College Code : 116)

Ravipadu Road, Narasaraopet, Palnadu Dt, A.P., Ph : 9247025166

Teaching Plan

Name of the Course with code : ABSTRACT ALGEBRA

Class & Semester / Academic Year : B.Sc & 3 SEM /2023-2024

Name of the faculty Member : M.SRINIVASARAO

Date	Topic	No. of periods required	Book(s) followed
UNIT-1 GROUPS:			
17/08/23	Binary Operations	1	T1
18/08/23	Algebraic Structure	1	T1
19/08/23	Semi Group-Monoid	1	T1
21/08/23	Group Definition and Examples	1	T1
22/08/23	Elementary Properties	2	T1
25/08/23	Finite and infinite Groups	2	T1
26/08/23	Examples	1	T1
29/08/23	Order Of a Group	2	T1
31/08/23	Composition Tables and Examples	2	T1
Total No.Of Periods Required:		13	
UNIT-2 SUBGROUPS:			
01/09/23	Complex Definition	1	T1
02/09/23	Multiplication of Complexes	1	T1, T2
04/09/23	Inverse of Complex	1	T1
05/09/23	Sub Group Definition , Examples	5	T1, T2
09/09/23	Criteria For a Complex to be Sub Group	3	T1
12/09/23	Criteria For a Complex to be Sub Group	6	T1
25/09/23	Product of Sub Groups	1	T1
26/09/23	Criteria For a Product of Sub Groups to be Sub Group	2	T1
28/09/23	Intersection of Subgroups	1	T1
29/09/23	Union of Subgroups	1	T1
30/09/23	Cosets Definition, Properties	1	T1
30/09/23	Lagrange's Theorem	1	T1
Total No.Of Periods Required:		23	
UNIT-3 NORMAL SUBGROUPS AND HOMOMORPHISM:			
03/10/23	Definition of Normal Subgroup	1	T1
04/10/23	Proper, improper Normal Subgroups	1	T1
05/10/23	Therms on Normal Subgroups	3	T1
09/10/23	Intersection of Normal Subgroups	1	T1
10/10/23	Index Theorem	1	T1
11/10/23	Quotient Group	1	T1

12/10/23	Existence of a Quotient Group	1	T1
13/10/23	Homomorphism,Elementary Properties	3	T1
16/10/23	Kernal of Homomorphism	1	T1
17/10/23	Fundamental Theoram	1	T1
	Total No.Of Periods Required:	14	
UNIT-4 PERMUTATIONS AND CYCLIC GROUPS			
18/10/23	Definition of Permutation ,Multiplication of permutations	1	T1
26/10/23	Inverse Permutation ,Cyclic Permutations	1	T1
27/10/23	Transposition, Even, odd Permutations	3	T1
31/10/23	Cayleys Theorem	1	T1
01/10/23	Cyclic Group, Properties	4	T1
07/11/23	Classification of Cyclic Groups	2	T1
	Total No.Of Periods Required:	12	
UNIT-5 RINGS			
08/11/23	Rings,Basic Properties	2	T1
10/11/23	Boolean Rings,Divisors of Zero	1	T1
11/11/23	Integral Domains	3	T1
15/11/23	Division Rings and Fields	1	T1
16/11/23	Characteristic of a Ring	1	T1
17/11/23	Characteristic of a Integral Domain	1	T1
18/11/23	Characteristic of a Field	1	T1
24/11/23	Sebrings and Ideals	5	T1
	Total No.Of Periods Required:	14	

Text Book :

T1 A text book of Mathematics for B.A /B.Sc. by B.V.S.S. SARMA and others, Published by S.Chand & Company, New Delhi.

Reference Book:

R1 Abstract Algebra by J.B. Fraleigh,Published by Narosa Publishing House.

R2 Modern Algebra by M.L. Khanna.

R3 Rings and Linear Algebra by Pundri & Pundir ,Published by Pragathi Prakashan.