

## I – Academic Planner

### A. Teaching Plan (Year: August 2020 Semester: Odd)

Teacher's Name: Dr. Pratibha Kumar

Department: Mathematics

S. No	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit	Start Date	End Date
1.	32351302	Group Theory 1 (B.Sc. (Hons.) Mathematics IIIrd Semester)	CORE	Symmetries, Dihedral Groups, Groups, Subgroups, centralizer and normalizer, Product of two groups, cyclic groups, Subgroups of cyclic groups	10 August' 2020	15 September' 2020
				Permutation groups, alternating group, cosets, Lagrange's theorem, External direct products, normal Subgroups, factor groups	16 September' 2020	05 October' 2020
				Group homomorphism, Cayley's theorem, Properties of isomorphism, Isomorphism theorems	06 October' 2020	27 November' 2020
2.	32351502	Group Theory II (B.Sc. (Hons.) Mathematics Vth Semester)	CORE	Automorphisms, inner automorphism, applications of factor groups to automorphism, characteristics subgroups, commutator subgroups	10 August' 2020	22 September' 2020
				External direct products, internal direct products Fundamental theorem of finite abelian groups	23 September' 2020	20 October'2020
				Group actions, stabilizers and kernels, Applications of group actions, Generalized Cayley's theorem, Index theorem Class equations and conjugacy in $S_n$ , p- groups, Sylow's theorems and consequences, Cauchy's theorem, Simplicity of $A_n$ ,	21 October'2020	27 November' 2020

**Teaching Plan (Year: 2021 Semester: Even)**

**Teacher's Name: Dr. Pratibha Kumar**

**Department: Mathematics**

S. No	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit	Start Date	End Date
1.	32351401	Partial Differential Equations (B.Sc. (Hons.) Mathematics IVth Semester)	CORE	Introduction, classification and Construction of first order PDE, method of characteristics, general solution of first order PDE	02 January' 2021	13 February' 2021
				Canonical Forms and Method of separation of variables, reduction to canonical forms	14 February'2021	23 March' 2021
				Equations with constant coefficients, Cauchy Problem, initial value boundary problem, non- homogeneous boundary conditions		
				Method of separation of variables for Second order, Goursat problem, Existence and uniqueness of vibrating string Problem, heat conduction problem	31 March'2021	29 April' 2021
2.	32351403	Ring Theory and Linear Algebra I (B.Sc. (Hons.) Mathematics IVth Semester)	CORE	Definitions and examples of rings, subrings, integral domains and fields, ideals, homomorphism, isomorphism	02 January' 2021	16 February' 2021
				Vector spaces, subspaces, linear span, Bases and dimension	17 February'2021	23 March' 2021
				Linear transformation, null spaces, Range, rank and nullity of linear Transformation		
				matrix representation, Algebra of linear transformation, Isomorphism, invertibility, Change of coordinate matrix	31 March'2021	29 April' 2021

**B. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Teachers**

<b>Event Topic</b>					
<b>Type / Nature (FDP/Webinar/Workshop etc.)</b>					
<b>Organizing In-charge</b>					
<b>Details regarding invited Resource Person</b>					
<b>Nature of Participation (e.g. Invited Speaker, Participant etc.)</b>					
<b>Date/s</b>		<b>Timing/s</b>		<b>Mode</b>	

**C. Internal Assessment: House Exam (Test/Presentation etc.) & Assignment\***

<b>Course Code</b>	<b>Course Name</b>	<b>Unique Paper Code</b>	<b>Topic Name</b>	<b>Day and Date</b>	<b>Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining</b>
563	B.Sc. (Hons.) Mathematics IIIrd Semester	32351302	Groups, Subgroups, centralizer and normalizer, Product of two groups, cyclic groups,	26 October' 2020	11 November' 2020
563	B.Sc. (Hons.) Mathematics Vth Semester	32351502	Automorphisms, inner automorphism, applications of factor groups to automorphism, characteristics subgroups	23 October' 2020	11 November' 2020

<b>Course Code</b>	<b>Course Name</b>	<b>Unique Paper Code</b>	<b>Topic Name</b>	<b>Day and Date</b>	<b>Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining</b>
563	B.Sc. (Hons.) Mathematics IVth Semester	32351401	Canonical Forms and Method of separation of variables, reduction to canonical forms	02 April' 2021	12 April' 2021
563	B.Sc. (Hons.) Mathematics IVth Semester	32351403	Rings, subrings, integral domains and fields, ideals	18 March'2021	31 March'2021

**\*Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester**

**D. Organization of Department/College Society Meetings by Staff Advisor/Convener**

<b>Department/Society</b>	<b>Meeting Date</b>	<b>Purpose</b>

**E. College Functions**

<b>College Function</b>	<b>Function Date</b>	<b>Role to be played</b>