I – Academic Planner

A. Teaching Plan (Year : 2020-21) Semester: Odd)

Teacher's Name : Dr. KAVITA GUPTA Department: MATHEMATICS

S. No.	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit	Start Date	End Date
1.	42354302	Algebra	CORE (B.Sc. (P) Analytical Chemistry) III sem	Definiton of binary operation, group, semigroup, monoid, abelian group and their examples. Theorems on groups	11.08.2020	19.08.2020
2.	42354302	Algebra	CORE	Exercise of chapter 2	20.08.2020	25.08.2020
3.	42354302	Algebra	CORE	Dihedral Group	26.08.2020	27.08.2020
4.	42354302	Algebra	CORE	Ch-3 finite groups and subgroups Definition of subgroup, finite subgroup test, two step subgroup test and one step subgroup test.	01.09.2020	02.09.2020
5.	42354302	Algebra	CORE	Definition of subgroup, finite subgroup test, two step subgroup test and one step subgroup test. Cyclic subgroups and generators, centre of the group	03.09.2020	08.09.2020
6.	42354302	Algebra	CORE	Theorems on centre and centralizer of group	10.09.2020	10.09.2020
7.	42354302	Algebra	CORE	Exercise of chapter 3:	11.09.2020	14.09.2020
8	42354302	Algebra	CORE	Ch-4 Cyclic group started : definition of cyclic group and its examples.	15.09.2020	15.09.2020
9	42354302	Algebra	CORE	Theorems on cyclic groups	16.09.2020	16.09.2020
10	42354302	Algebra	CORE	Ch-4 Cyclic group: definition of cyclic group and its examples.	15.09.2020	15.09.2020

11	42354302	Algebra	CORE	Fundamental theorem of cyclic groups	17.09.2020	17.09.2020
12	42354302	Algebra	CORE	Revision	18.09.2020	18.09.2020
13	42354302	Algebra	CORE	Subgroups of Zn	22.09.2020	22.09.2020
14	42354302	Algebra	CORE	Revision of all concepts of group theory ch – 2,3,4	23.09.2020	24.09.2020
15	42354302	Algebra	CORE	Permutation group, Order of permutation, Different Operations on permutations	29.09.2020	01.10.2020
16	42354302	Algebra	CORE	Cosets and its properties , Lagrange's theorem, index of a subgroup	06.10.2020	07.10.2020
17	42354302	Algebra	CORE	Normal subgroups: definition, examples factor groups	08.10.2020	08.10.2020
18	42354302	Algebra	CORE	Rings: definition, examples, commutative and non-commutative rings	13.10.2020	15.10.2020
19	42354302	Algebra	CORE	Properties of rings, subrings and ideals	27.10.2020	29.10.2020
20	42354302	Algebra	CORE	Integral domain and fields, examples	03.11.2020	05.11.2020
21	42354302	Algebra	CORE	Definition and examples of vector spaces	10.11.2020	12.11.2020
22	42354302	Algebra	CORE	Subspaces, basis and dimension of vector spaces	17.11.2020	19.11.2020
23	42354302	Algebra	CORE	Linear transformation, null spaces, Rank nullity theorem	24.11.2020	26.11.2020
24	32355345	Linear Programming and Game Theory	GE	Definition of Assignment problem and basic terminology	02.09.2020	02.09.2020
25	32355345	Linear Programming and Game Theory	GE	Hungarian method discussed	03.09.2020	03.09.2020
26	32355345	Linear Programming and Game Theory	GE	Questions on Hungarian Method discussed	04.09.2020	04.09.2020
27	32355345	Linear Programming and Game Theory	GE	Questions on Alternate optimal solution case of Hungarian Method discussed	05.09.2020	05.09.2020

28	32355345	Linear Programming and Game Theory	GE	Unbalanced and maximization case in Assignment Problem	08.09.2020	08.09.2020
29	32355345	Linear Programming and Game Theory	GE	Mathematical model of AP and practice	09.09.2020	09.09.2020
30	32355345	Linear Programming and Game Theory	GE	Introduction of Transportation Problem	10.09.2020	10.09.2020
31	32355345	Linear Programming and Game Theory	GE	North west corner rule	11.09.2020	11.09.2020
32	32355345	Linear Programming and Game Theory	GE	Least Cost Method	12.09.2020	12.09.2020
33	32355345	Linear Programming and Game Theory	GE	VAM	15.09.2020	16.09.2020
34	32355345	Linear Programming and Game Theory	GE	MODI Method	17.09.2020	22.09.2020
35	32355345	Linear Programming and Game Theory	GE	Unbalanced TP	23.09.2020	24.09.2020
36	32355345	Linear Programming and Game Theory	GE	Maximization case and alternate optimal solution case of TP	25.09.2020	25.09.2020
37	32355345	Linear Programming and Game Theory	GE	Final revision of f TP (chapter finished)	26.09.2020	26.09.2020
38	32355345	Linear Programming and Game Theory	GE	Graphical solution of LPP	29.09.2020	01.10.2020
39	32355345	Linear Programming and Game Theory	GE	Convexity	03.09.2020	07.10.2020
40	32355345	Linear Programming and Game Theory	GE	Basic feasible solution	08.10.2020	09.10.2020

41	32355345	Linear Programming and Game Theory	GE	Simplex method and questions on it	10.10.2020	17.10.2020
42	32355345	Linear Programming and Game Theory	GE	Two phase method	20.10.2020	22.10.2020
43	32355345	Linear Programming and Game Theory	GE	Big M method	23.10.2020	27.10.2020
44	32355345	Linear Programming and Game Theory	GE	Solving system of equations by simplex method	28.10.2020	28.10.2020
45	32355345	Linear Programming and Game Theory	GE	Finding Inverse of a matrix by simplex method	29.10.2020	29.10.2020
46	32355345	Linear Programming and Game Theory	GE	Duality: Introduction and its formulation	30.10.2020	30.10.2020
47	32355345	Linear Programming and Game Theory	GE	Duality theorems	31.10.2020	04.11.2020
48	32355345	Linear Programming and Game Theory	GE	Game theory: Maximin and minimax criterion	05.11.2020	07.11.2020
49	32355345	Linear Programming and Game Theory	GE	Formulation of games, Rule of dominance	10.11.2020	14.11.2020
50	32355345	Linear Programming and Game Theory	GE	Graphical solution to a game	17.11.2020	21.11.2020
51	32355345	Linear Programming and Game Theory	GE	To solve a game by formulating it as a LPP	24.11.2020	28.11.2020
52	32351303	Multivariate Calculus Practical	Core	Practical 7 : Level curves Practical 8: Limit for a function of two variables	21.08.2020	29.08.2020
53	32351303	Multivariate Calculus Practical	Core	Practical 2	04.09.2020	04.09.2020
54	32351303	Multivariate Calculus Practical	Core	Practical 3	05.09.2020	05.09.2020

55	32351303	Multivariate Calculus Practical	Core	Practical 9: Tangent Plane	11.09.2020	12.09.2020
56	32351303	Multivariate Calculus Practical	Core	Practical 4: continuity at x = 0	19.09.2020,25.09.2020	26.09.2020
57	32351303	Multivariate Calculus Practical	Core	Practical 5: Rolle's Theorem(first two questions)	03.10.2020	03.10.2020
58	32351303	Multivariate Calculus Practical	Core	Practical 5: Rolle's Theorem (Q3 to Q5)	09.10.2020	09.10.2020
59	32351303	Multivariate Calculus Practical	Core	Practical 6: LMV	10.10.2020	10.10.2020
60	32351303	Multivariate Calculus Practical	Core	Practical 10: Incremental Approximation	16.10.2020	17.10.2020
61	32351303	Multivariate Calculus Practical	Core	Practical 11: Maxima and Minima	23.10.2020	24.10.2020
62	32351303	Multivariate Calculus Practical	Core	Practical 12: Region Plot	30.10.2020	31.10.2020
63	32351303	Multivariate Calculus Practical	Core	Practical 1: Limit	06.11.2020	07.11.2020
64	32351303	Multivariate Calculus Practical	Core	Revision and doubt session	13.11.2020	13.11.2020
65	32351303	Multivariate Calculus Practical	Core	Internal exam	20.11.2020	21.11.2020
66	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Basics of Mathematica	25.11.2020	25.11.2020
67	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 8: Complex numbers	02.12.2020	02.12.2020
68	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 9: Finding random numbers	09.12.2020	09.12.2020
69	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 4: Tracing of Conic sections	16.12.2020	16.12.2020
70	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 7: Limit, differentiation and integration	23.12.2020	23.12.2020
71	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 9: Plotting of finite and infinite subsets of R	30.12.2020	30.12.2020
72	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 7: Limit, differentiation of vector valued functions	04.01.2021	04.01.2021
73	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 7: Integration of vector valued functions	11.01.2021	11.01.2021

74	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 10: Matrix and its operations	18.01.2021	18.01.2021
75	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical 10: Eigen values, eigen vectors, Cayley Hamilton theorem	25.01.2021	25.01.2021
76	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Practical file complete	01.02.2021	08.08.2021
77	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Revision	15.02.2021	15.02.2021
78	32351101	Calculus Practicals	Core (B.Sc. (H) Maths I sem)	Internal assessment	22.02.2021	22.02.2021

A2: Teaching Plan (Year : 2020-21 Semester: Even)

Teacher's Name _DR. KAVITA Department: MATHEMATICS

S. No.	UPC	Paper Name	Core/AECC/GE/SEC	Topic/Unit	Start Date	End Date
1.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Conic Sections	05.04.2021	17.04.2021
2.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Vector Valued functions: limit , derivative, Divergence , curl, gradient and properties, Vector equation of tangent line	18.04.2021	24.04.2021
3.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	L'Hopital's rule	25.04.2021	27.04.2021
4.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Concavity	28.05.2021	01.05.2021
5.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Asymptotes	02.05.2021	03.05.2021
6.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Curve tracing of polynomials	04.05.2021	17.05.2021
7.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Curve tracing : graph with asymptotes	18.05.2021	18.05.2021

8.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	curve tracing: rational functions	19.05.2021	19.05.2021
9.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Vertical tangents and cusps	19.05.2021	24.05.2021
10.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Reduction Formulae	25.05.2021	28.05.2021
11.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Integration of irrational functions	29.05.2021	31.05.2021
12.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Tracing of Parametric curves	01.06.2021	05.06.2021
13.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Tracing of Polar curves	06.6.2021	12.06.2021
14.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Tracing of Polar curves	13.06.2021	19.06.2021
15.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Volume and surface area	20.06.2021	10.07.2021
16.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Quadrics	11.07.2021	13.07.2021
17.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Sketching of cone and ellipsoid	14.07.2021	21.07.2021
18.	42351201	Calculus and Geometry	Core (B.Sc.(P) Physical Science Sem II)	Internal assessment and doubts session	22.07.2021	02.08.2021
19.	32357611	Linear Programming and theory of Games	DSE 4(ii)	Assignment problem: Meaning, Hungarian method	06.01.2021	08.01.2021
20.	32357611	Linear Programming and theory of Games	DSE 4(ii)	Transportation problem	09.01.2021	27.01.2021
21.	32357611	Linear Programming and theory of Games	DSE 4(ii)	Graphical solution to LPP	28.01.2021	29.01.2021

22.	32357611	Linear Programming and theory of Games	DSE 4(ii)	Basic feasible solution	30.01.2021	03.02.2021
23	32357611	Linear Programming and theory of Games	DSE 4(ii)	Simplex method	03.02.2021	12.02.2021
24	32357611	Linear Programming and theory of Games	DSE 4(ii)	Correspondence between BFS and extreme point	12.02.2021	18.02.2021
25	32357611	Linear Programming and theory of Games	DSE 4(ii)	Improvement theorem	19.02.2021	19.02.2021
26	32357611	Linear Programming and theory of Games	DSE 4(ii)	Different cases in simplex method: alternate O.S and case of unrestricted variables	19.02.2021	24.02.2021
27	32357611	Linear Programming and theory of Games	DSE 4(ii)	Algebra of simplex method	25.02.2021	25.02.2021
28	32357611	Linear Programming and theory of Games	DSE 4(ii)	Big – M method	26.02.2021	03.03.2021
29	32357611	Linear Programming and theory of Games	DSE 4(ii)	Two phase method	04.03.2021	12.03.2021
30	32357611	Linear Programming and theory of Games	DSE 4(ii)	Duality	13.03.2021	23.03.2021
31	32357611	Linear Programming and theory of Games	DSE 4(ii)	Game Theory	31.03.2021	22.04.2021
32	32357611	Linear Programming and theory of Games	DSE 4(ii)	Revision and doubts session, Internal assessment	23.04.2021	28.04.2021
33	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 2: Characteristic curves	02.01.2021	14.01.2021
34	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 1: Cauchy problem	19.01.2021	21.01.2021
35	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 3: Cauchy problem	28.01.2021	28.01.2021
36	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 6: System of ODE	02.02.2021	02.02.2021
37	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 4.1: Wave equation in infinite string.	04.02.2021	09.02.2021
38	32351401	Partial Differential Equations	Core B.Sc. (H) Maths IV sem	Revision	16.02.2021	18.02.2021

		(Practicals only)				
39	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 4.2: wave equation in finite string	23.02.2021	23.02.2021
40	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 5: Heat equation	25.02.2021	25.02.2021
41	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 7: Pointwise convergence	02.03.2021	11.03.2021
42	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical 8: Uniform convergence	16.03.2021	23.03.2021
43	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Viva of group 1	06.04.2021	06.04.2021
44	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Viva of group 2	08.04.2021	08.04.2021
45	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Practical file completion	13.04.2021	15.04.2021
46	32351401	Partial Differential Equations (Practicals only)	Core B.Sc. (H) Maths IV sem	Internal Assessment	22.04.2021	22.04.2021
47	42353604	Transportation and Network Flow Problems	SEC-IV	Networking terminology and minimal spanning tree	09.01.2021	15.01.2021
48	42353604	Transportation and Network Flow Problems	SEC-IV	PERT/CPM	16.01.2021	23.01.2021
49	42353604	Transportation and Network Flow Problems	SEC-IV	Floyd's Algorithm	24.01.2021	30.01.2021
50	42353604	Transportation and Network Flow Problems	SEC-IV	Assignment problem: Hungarian method	06.02.2021	20.02.2021
51	42353604	Transportation and Network Flow Problems	SEC-IV	Transportation problem and Transhipment Problem	27.02.2021	20.03.2021

52	42353604	Transportation and Network Flow Problems	SEC-IV	Maximal flow problem	02.04.2021	02.04.2021
53	42353604	Transportation and Network Flow Problems	SEC-IV	Dijikstra's algorithm for finding the shortest path.	10.04.2021	10.04.2021
54	42353604	Transportation and Network Flow Problems	SEC-IV	Internal assessment test from Transportation problem, assignment problem	17.04.2020	28.04.2021

B. Outstation Field visits for students

Project Name / Paper Name			
Destination		**Travel Mode**	
Departure Month		**Return**	
Faculty-in-Charge		**Number of Students going**	

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

Course Code	**Course Name**	**UPC**	**Topic Name**	**Day and Date**	**Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining**
563	(B.Sc. (H) Maths VI Sem)	32357611	Internal Assessment Test: Transportation Problem, Assignment Problem, Duality, Simplex Method	17.04.2020 (Friday) 11.40am-12.40pm	27.05.2020
582	B.Sc. (Prog) Physical Science VI Sem	42353604	Internal Assessment Test: Transportation Problem, Assignment Problem	28.04.2020 (Tuesday)at 11.30 am-12.30 pm	27.05.2020

585	B.Sc. (Prog.) Analytical Chemistry-VI Sem	42357634	Concavity, double point, asymptotes, tracing of parametric curves and polar curves.	20.04.2020 (Monday) 11.40 am-12.50 pm	27.05.2020
563	B.Sc. (H) Maths Sem – IV	32351401	Practical Internal exam: Practical 1 to 6	31.01.2020 (Friday)	31.01.2020
563	B.Sc. (H) Maths Sem – IV	32351401	Practical Internal exam: Whole syllabus of Practicals	29.05.2020 (Friday)	
582	B.Sc. Physical Science II Sem	42351201	Conic sections, Tracing of curves, Asymptotes, Concavity, L' Hopital's rule	24.07.2021 (Sat)	30.07.2021
563	B.Sc. (H) Maths VI Sem	32357611	Unit 1 and Unit 2	23.04.2021(Friday)	28.04.2021
563	B.Sc. (H) Maths I Sem	32351101	Practical: 6,7,8,9,10	22.02.2021(Monday)	28.04.2021
563	B.Sc. (H) Maths -IV Sem	32351401	Practical 1 to 9	22.04.2021(Thu)	28.04.2021
582	B.Sc. (P) Physical Science (VI) Sem	42353604	Transportation problem, assignment problem	17.04.2021(Sat)	28.04.2021

***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

Department/Society	Meeting Date	Purpose

Tensors-The Mathematical Society	23.01.2021	Nomination Notice for the selection of office bearers
Tensors-The Mathematical Society	03.02.2021	Interviews for the selection of office bearers declared
Tensors-The Mathematical Society	05.03.2021	Permission taken from the principal for conducting SUPREMUM 2021

E. College Functions

College Function	Function Date	Role to be played

For Departments

A. Department activities for students – Election/Freshers/Welcome/Farewell/Department Seminars/Society functions

Event	Date	Timing	Venue	Event In-charge / Supervisor
Department Election	03.02.2021	12.40 p.m	Google meet	Dr. Raj Kumar and Dr. Kavita Gupta
Fresher's Welcome	24.02.2021	10.00 am – 5.00 pm	Google meet	Dr. Raj Kumar and Dr. Kavita Gupta
Farewell	Could not take place due to COVID-19			
Department Society functions	09.03.2021 to 10.03.2021	9.00 am – 5.00 pm	Google meet	Dr. Raj Kumar and Dr. Kavita Gupta
Department Seminars	09.03.2021	12.00 noon	Google meet	Dr. Raj Kumar and Dr. Kavita Gupta
Any Other ( )				

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

Event Topic	A Pi Story				
Type / Nature (FDP/Webinar/Workshop etc.)	**Qazi Zameeruddin Lecture**				
Organizing In-charge	**Dr. RAJ KUMAR and DR. KAVITA GUPTA**				
Details regarding invited Resource Person	**Prof. Vikas Bisht,** Associate professor in Department of Mathematics, Panjab University.				
Nature of Participation (e.g. Invited Speaker, Participant etc.)					
Date/s	**09.03.2021**	**Timing/s**	**12.00 noon – 1.00 p.m.**	**Mode**	**Physically**