Lesson Plan for (2019-20)

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans
Session – 2019-20

Department: Mathematics Class: M. Sc.2 Semester- 3

	Subject : MATH-678S : Linear Programming Name of the Teacher : Dr. Leetika			
S. N	**Dates (Monthly)**		**Topics to be Covered**	**Academic Activity Undertaken***
	From	**To**		
1	25nd July,	31 August ,	Linear Programming and examples, Convex Sets, Hyperplane, Basic Feasible and Optimal Solutions, Extreme Point & graphical methods. Simplex method, Charnes-M method, Two phase method, Duality theory, Dual linear Programming Problems, fundamental properties of dual Problems, Complementary slackness, Dual Simplex Algorithm,	Doubt Session, Examination pattern discussed, Test Conducted , Assignments provided
2	1 September	10 October	Parametric Programming, Revised Simplex method, Transportation Problems, Balanced and unbalanced Transportation problems, U-V method, Paradox in Transportation problem, Assignment problems, Integer Programming problems	Doubt session, Assignments provided Mid Term Test
3	18 October	29 November	Pure and Mixed Integer Programming problems, 0-1 programming problem, Gomary's algorithm, Branch & Bound Technique. Travelling salesman problem, Sensitivity analysis	Doubt session, Assignments, Question papers discussed. Revision of a few topics.
Subject: MATH-661S : Probability and Mathematical Statistics-I Name of the Teacher: Ms. Manisha				
1	25nd July,	31 August ,	Measurement scales, Attribute and variable ,Collection, Compilation and Tabulation of data, Measures of central tendency their properties. Standard deviation and Kurtosis, Box and Whisker plotCorrelation & Regression Analysis Karl Pearson's and Spearman's rank correlation coefficient. Linear Regression and its properties. Theory of attributes, independence and association	Syllabus intimation, Examination Pattern, marking scheme discussed, Doubt sessions
2	1stSeptemb er	10thOctober	Probability: Bayes' theorem and its applications. Discrete and Continuous random variables. Probability mass and density function, Expectation of single and two dimensional random variables. Moment generating function and probability generating functions.	Assignments, tests, Mid Term Examination
3	18thOctober	29 November	Distributions Binomial. Poisson distribution, Negative Binomial and Hypergeometric. Uniform, Normal distribution. Beta, Gamma, Chi-square and Bivariate normal distributions.Chebyshev's inequality, weak law of large numbers, Central limit theorems.	Doubt session, Assignments, Question papers discussed. Revision of a few topics.
Subject: MATH-618S : Topology Name of the Teacher: Dr. Sonica				
1	25nd July,	31 August ,	Topological spaces, bases for a topology, the subspace topology, closed sets and limit points, countability axioms, continuous functions, Connected spaces, connected subspaces of a real line.	Doubt Session, Examination pattern discussed, Test Conducted, taken few presentations
2	1st September	10thOctober	Components and local connectedness, compact spaces, compact space of a real line, limit point compactness, local compactness, nets, order topology, product topology, quotient topology.	Doubt session, Assignments provided Mid Term Test held
3	18thOctober	29November	Separation axioms, Normal spaces, the Urysohn Lemma, the UrysohnMetrization theorem, Tietze extension theorem and the Tychonoff theorem.	Doubt session, Assignments, Question papers discussed. Revision of a few topics.

Subject: MATH-617S : Field Theory Name of the Teacher: Dr Taranjot

1	25nd July,	31 August	Fields, Prime field, Field extension, Algebraic extension, Splitting fields, Algebraically closed fields, Algebraic closure	Doubt Session, Examination pattern discussed, Test Conducted
2	1st September	10th October	Separable and inseparable extension, Normal extension, Perfect fields, Primitive elements, Langrange's Theorem on primitive elements, Galois extension.	Doubt session, Students presentation taken, Mid Term Test
3	18th October	29th November	Fundamental Theorem of Galois theory, Cyclotomic and cyclic extensions, Applications of cyclotomic extension and Galois theory to the constructability of regular polygons, Solvability of polynomials by radicals	Doubt session, Assignments, Question papers discussed. Revision of a few topics.

Subject : MATH-676S : Fluid Mechanics-I Name of the Teacher: Dr. Nisha

1	25nd July,	31 August	Real, Ideal fluids, Velocity of fluid particle, Streamline, Pathline, Velocity Potential, Vorticity vector, Local-Particle Rate of change, Equation of continuity, Irrotational and rotational motion, rigid boundary conditions, Application of Euler and Bernoulli theorem, Potential theorems	Course Teaching, Assignments, Doubt session with discussions
2	1stSeptemb er	10thOctober	Axis symmetric flow, Impulsive motion, Kelvin theorem, vorticity equation, 3 D flow, Images in plane and solid sphere, Stoke stream function	Mid. Term , Presentations, Assignments
3	18 October	29November	2D flow, Complex potential. Milne Thompson theorem, Blasius theorem with applications, Karman Vortex Street	Class tests, Previous year QP discussions, Projects, Doubts taking, Presentations

Departmental Meeting was held after the completion of every month to review the syllabus distribution.

***Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc.
Other Methods adopted by the teacher – Please write the specific teaching method