**CMG Govt. College for Women, Bhodia Khera ( Fatehabad )**

Lesson Plan 2022-23

Name of Asstt./Associate: Mr. Sandeep Kumar

Class and Section: M.A. 1st Semester

Subject : Quantitative techniques in Economics

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| **Month** | **Week** | **Topics** |
| August | 3rd and 4th | Functions: Concept and types of functions; Multivariable functions; Interpretation of revenue, cost, demand, supply functions; Types of production cost functions; Limits, Continuity |
| September | 1st and 2nd | derivatives; Rules of differentiation and its economic applications. Rules of Partial differentiation and its economic applications. Elasticity and their types. |
| 3rd and 4th | Problem of maxima -minima in single and multivariable function; Unconstrained and constrained optimization in simple economic applications. |
| 30 | Assignment on the Topic “ Rules of differentiation and its economic applications” |
| October | 1st and 2nd | Concept of integration and its economic application |
| 3rd and 4th | Concept of Matrix and their types, simple operations on matrices, matrix inversion and rank of matrix; Determinants and their properties.. |
| November | 1st and 2nd | Solution of simultaneous equations through Cramer‘s rule and Matrix inverse method and their economic applications. Introduction to input-output analysis |
| 3rd and 4th | Difference equations – Solution of first and second order difference equations; |
| 30 | Sessional Test on the Topic “ Solution of simultaneous equations through Cramer‘s rule and Matrix inverse method and their economic applications. Introduction to input-output analysis” |
| December | 1st and 2nd | Applications in trade cycle models; Growth models and lagged market equilibrium models. |