**Post Graduate Government College for Girls, Sector-42, Chandigarh**

**Teaching Plan for Bachelors (Third and Fifth Semester) and Post Graduate (Third Semester)**

**Session (2020-2021)**

**Class: Msc(IT) 3 sem**   **Name of the Teacher: Jasdeep Kaur**

**Subject: Systems Approach to Mgt and Optimization Tech Paper: MS-14**

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| **S. No** | **Dates** | **Topics to be Covered** |
| Week 1 | 03/08/2020 – 08/08/2020 | Concepts of Computer Based Systems: Data, Information, Information Systems, Model of computer based information system. |
| Week 2 | 10/08/2020 – 14/08/2020 | Basics of Operations Research (OR): Origin and Development of OR, Characteristics of OR, Models in OR,  OR and Decision Making, Role of Computers in OR, Limitations of OR. |
| Week 3 | 17/08/2020 – 22/08/2020 | Linear Programming: Mathematical Formulation, Graphical representation |
| Week 4 | 24/08/2020 – 29/08/2020 | Introduction to Management Information System, Decision Support System and Knowledge Based Systems. |
| Week 5 | 31/08/2020- 05/09/2020 | Simplex method, Duality in Linear  programming, Dual Simplex Method. |
| Week 6 | 07/09/2020- 12/09/2020 | The Revised Simplex Method, Sensitivity Analysis. |
| Week 7 | 14/09/2020- 19/09/2020 | Special types of Linear Programming problems: Transportation and Assignment problems. |
| Week 8 | 21/09/2020- 26/09/2020 | Accounting Information System: Characteristics, sample system, subsystems for filling customer order, order replenishment stock, |
| Week 9 | 28/09/2020- 03/10/2020 | Performing general ledger processes; features and use of Accounting Information System Package-Tally. |
| Week 10 | 05/10/2020- 10/10/2020 | Marketing Information System: Basic concepts, model, subsystems including Marketing Research, Marketing Intelligence, Product, Place, Promotion and Pricing subsystems. |
| Week 11 | 12/10/2020- 16/10/2020 | Integer Programming: Introduction, Branch and Bound Techniques, Binary Linear Programming. |
| Week 12 | 19/10/2020- 24/10/2020 | Manufacturing Information System: Model and subsystems including Accounting information. |
| Week 13 | 27/10/2020- 30/10/2020 | Industrial Engineering, Inventory, Quality and Cost Subsystems. |
| Week 14 | 03/11/2020- 07/11/2020 | Financial Information System: Model and Subsystems including Forecasting. |
| Week 15 | 09/11/2020- 12/11/2020 | Funds Management and Control Subsystems. |
| Week 16 | 16/11/2020- 21/11/2020 | Human Resources Information Systems: Model and Subsystems including human resources research, human resources intelligence, HRIS Database, HRIS output. |
| Week 17 | 23/11/2020- 28/11/2020 | Assignment & Traveling salesman problems. 11. Dynamic Programming: Deterministic & Probabilistic Dynamic Programming |