Unit - I : Computer base and spatial data management, use of quantitative and cartographic methods, use of software tools, creation of folders, saving files, spreadsheets, use of statistical formula and cartographic representation – spatial and non-spatial data – through micro-soft-excel and GIS software packages.

Unit – II Research themes and issues, Survey of research in geography selection and relevance of research theme, sources and types of data, primary and secondary data, published and unpublished sources, toposheet, satellite imageries, formulation research proposal questionnaire schedule formulation of hypothesis, objectives, Nature, type and characteristics of hypothesis. Testing of hypothesis – chi-square test and student’s ‘t’ test.

Research design, Methodology and data base, out line of the research project, report writing, Appendices, notes, references, citation and bibliography.

Unit – III Principles and application of following Cartographic & Quantitative techniques (Any two)

1. Correlation regression analysis
2. Near neighbor analysis
3. Rank-size rule and primacy index
4. Use of statistical methods for spatial data and cartographic representation.
5. Regionalization methods and techniques.

Unit – IV: Principles and applications of following GIS & RS techniques (Any two)

1. Digital image processing techniques
2. Remote Sensing platforms and seasons
3. Mapping through satellite imageries
4 Digital Elevation Modeling
5 Land use and land cover mapping.

References: