

I Year II Semester

Code	BUSINESS ANALYTICS	Marks	L	T	P	C
25MB2C06		100	4	0	0	4

Unit- I Introduction to Data Analytics: Introduction to Data analytics - Role of Data in Organization, Data lifecycle. (Data source, data changes, processes, usage) -Various Data Types - Significance of Analytics- Role of Data Analyst - Difference between Data analytics and Business Analytics – real-world data analytics examples.

Unit -II Tools & Techniques: Typical Data Analysis Process - Data analytics techniques: Regression analysis, Factor analysis, Cohort analysis, Cluster analysis-Time-series analysis. Data analytics tools -Microsoft Excel, Tableau, SAS, RapidMiner, Power BI.

Unit -III Concepts of data cleaning - Data Visualization: Over view of Data visualization – Data Visualization tools, Statistical methods for summarizing data – How to create pivotal tables using excel - Exploring data using pivot table –Cross Tabulation _ Creating Charts: -1. Scatter charts, 2. Line charts, 3. Bar charts and column, 4. Pie Charts and 3-D charts, 4. Bubble charts, - Effective use of Dashboards, Power BI and Tableau.

Unit -IV Descriptive Analytics: Concept of Descriptive Analytics –Measures of central Tendency –Measuring and calculation of Arithmetic Mean, Mode, Median - Calculation of application of Weighted Arithmetic Mean, Geometric and Harmonic mean using MS Excel Measures of Variability-Range, Variance, Standard Deviation, Coefficient of Variation using MS Excel 35

Unit -V Predictive Analytics: Karl Pearson Correlation Techniques - Spearman's Rank correlation -Simple and Multiple regression -Regression by the method of least squares – Building good regression models – Regression with categorical independent variables.

Relevant cases have to be discussed in each unit and in examination case is compulsory from any unit.

References:

1. R for Data Science: Import, Tidy, Transform, Visualize, and Model Data, Hadley Wickham & Garrett Grolemund. O'REILLY.
2. Mohiuddin Ahmed, Al-Sakib Khan Pathan, Data Analytics: Concepts, Techniques, and Applications, Taylor & Francis Group, 2020
3. James Evans, Business Analytics, 2e, Pearson, 2017.
4. Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams Essential of Business Analytics, Cengage Learning, 2020.
5. Thomas Eri, Wajid Khattack & Paul Buhler: Big Data Fundamentals, Concepts, drVers and Techniques by Prentice Hall of India, New Delhi, 2015.
6. Akil Maheswari, Big Data, Upskill ahead by Tata McGraw Hill, New Delhi, 2016

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