

Subject Title	<b>Paper DSE 503: ADVANCED DATA VISUALIZATION</b>		
Class/Group	<b>B. Com (Business Analytics) (CBCS) Only</b>	Semester	V
Paper: DSE 503			Max. Marks: 70EE+30IE=100
PPW: 5 Hrs.			Exam Duration: 3Hrs

<b>COURSE OUTCOMES DSE- ADVANCED DATA VISUALIZATION , 5 Credits</b>	
<b>CO 1</b>	Understand how to solve analytical problems in real world scenarios
<b>CO 2</b>	Effectively define the objectives and execute analytics projects
<b>CO 3</b>	Understand different tools used in data visualization
<b>CO 4</b>	Learn visualization to create data-driven dashboards

Objective: To make students to understand the Advanced data visualization.

<b>UNITS</b>	<b>CONTENTS</b>
<b>I</b>	<b>CHART &amp; GRAPH SELECTION:</b> Differentiate between the following graph and chart types and when to use them: Categorical – Continuous - Time series – Bivariate – Distribution.
<b>II</b>	<b>BUSINESS INTELLIGENCE:</b> Overview of Business Intelligence (BI): Identify business intelligence (BI) concepts and their common applications - Differentiate between the major enterprise BI platforms and when each is appropriate - Apply BI techniques (online analytical processing [OLAP], drill through, drill down, drill up) - Report Building and Online Analytical Processing (OLAP): Apply techniques for building reports and identify the best uses of the learned techniques - Distinguish the elements of OLAP (online analytical processing)- Business Intelligence in Action: Identify the steps and benefits of scorecard and strategy management and apply the steps in appropriate situations - Distinguish between effective dashboard techniques
<b>III</b>	<b>MASHUPS:</b> Identify event streaming techniques and their uses - Differentiate between types of mashups in order to determine the best mashup for a dashboard presentation - Analyze trusted data in order to derive Information
<b>IV</b>	<b>DATA VISUALIZATION BEST PRACTICES:</b> Identify core data visualization rules in order to ensure quality report development - Identify the goals of data visualization and how data visualization can benefit an entity. Differentiate between the needs of different report users and identify appropriate report styles for each.
<b>V</b>	<b>REPORTING:</b> Reporting Options: Differentiate between alerts and trends and the appropriate uses for each - Distinguish the appropriateness of Self-Serve reports and their application in common scenarios - Differentiate between best uses for BI techniques in order to ensure effective reporting - What Makes a Good Report: Compare layout options and identify appropriate presentation choices for maximum effectiveness - Differentiate between good and bad report implementations and the potential impact of poor implementation - Constructing Reports: Distinguish between when to use reporting tools versus analysis tools - Use core tools to build report and dashboard layouts to achieve maximum Effectiveness
<b>Reference</b>	<b>Text Books &amp; Reference Books.</b> 1. Data Visualization Certificate; AICPA 2. Introducing Microsoft Power BI; Alberto Ferrari, Marco Russo; Microsoft Press 3. Introduction to Microsoft Power Bi: Bring Your Data to Life; M.O. Cuddley; Create space Independent Pub 4. Business Analysis with Microsoft Excel and Power BI, 5th edition; Conrad G. Carlberg; Pearson 5. Microsoft Power BI Dashboards Step by Step, Errin O'Connor, Microsoft Press