

ST. ALOYSIUS COLLEGE(AUTONOMOUS), JABALPUR

Reaccredited 'A+ 'Grade by NAAC(CGPA:3.68/4.00) College with Potential for Excellence by UGC DST-FIST Supported & STAR College Scheme by DBT

Faculty of Science Bachelor of Business Administration BBA III Semester Paper-Elective Business Intelligence with Power BI

Course Outcomes

| CO. No. | Course Outcomes | Cognitive Level |
|---------|--|--------------------|
| CO 1 | Understand the fundamentals, tools, and techniques of Business Intelligence. | U |
| CO 2 | Be exposed to the basic rudiments of business intelligence systems. | Apply |
| CO 3 | Understanding Data Analysis Concepts. | Apply, Analyze |
| CO 4 | Learn to navigate the Power BI interface | Create, Apply |
| CO 5 | Develop a variety of visualizations (charts, graphs, maps, etc.) | Apply |

Credit and Marking Scheme

| | Credits | Marks | | Total Marks |
|-----------|---------|----------|----------|--------------|
| | Creatis | Internal | External | I otal Warks |
| Theory | 3 | 40 | 60 | 100 |
| Practical | 1 | 40 | 60 | 100 |
| Total | 4 | | 200 | |

Evaluation Scheme

| | Marks | | |
|-----------|------------------------------|--------------------------|--|
| | Internal | External | |
| Theory | 3 Internal Exams of 20 Marks | 1 External Exams | |
| | (During the Semester) | (At the End of Semester) | |
| | (Best 2 will be taken) | | |
| Practical | 3 Internal Exams | 1 External Exams | |
| | (During the Semester) | (At the End of Semester) | |
| | (Best 2 will be taken) | | |



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Content of the Course

Theory

No. of Lectures (in hours per week): 2 Hrs. per week

Total No. of Lectures: 60 Hrs.

Maximum Marks: 60

| Units | Topics | No. of Lectures |
|-------|---|--------------------|
| I | Introduction to Business Intelligence, Business Intelligence Architecture, Transaction Processing vs. Analytical Processing – Major Tools and Techniques of Business Intelligence, Business Intelligence Life Cycle,Role of DataWarehouse, Schema and its types- Star Schema and Snow Flake Schema, Ethics and Business Intelligence. | 15 |
| II | Introduction to OLTP and OLAP – Different OLAP Architectures-Data Models, Tools in Business Intelligence-Role of DSS, EIS, MIS and digital Dashboards – Need for Business Intelligence- Business Intelligence value chain-Components applications-roles and responsibilities. | 15 |
| III | Introduction to Power BI : Power BI as a Business Intelligence Applications, Functions of Power BI, Power BI Components, Power BI Environment, Installation and setup of Power BI, Power BI query editor, Introduction to Power BI Dashboard , Dashboard Actions, Dashboard Report, BI Slicer. | 15 |
| IV | Data Connection in Power BI, Understanding Power Query Editor, Loading data from an Excel file, Loading multiple CSV files from a folder, creating table in Power BI, Table formatting, Key Processing Indicators (KPI), KPI Dashboard. | 15 |

Text Books:

- Mastering in Power BI, BPB Publications, India
- Business Intelligence : A Comprehensive Approach to Information Needs, Technologies and Culture , By Rimvydas Skyrius \cdot 2021

Reference Books:

- Business Intelligence and Applications, By Meenakshi Gupta
- BUSINESS INTELLIGENCE AND ANALYTICS by Dr. Himanshu Gupta , Dr. Nisha Agarwal

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List of Practical

- 1. Import a dataset from an Excel file and clean the data by removing duplicates and handling missing values.
- 2. Use Power Query Editor to transform a dataset, such as splitting columns, merging tables, or changing data types.
- 3. Create a bar chart to show the total sales by region.
- 4. Create a line chart to display the trend of sales over time.
- 5. Build a report that includes various visualizations, such as pie charts, bar charts, and tables, to analyze sales data.
- 6. Create a dashboard that combines several key performance indicators (KPIs) to give an overview of business performance.
- 7. Create a relationship between tables manually through Power BI.
- 8. Use the DAX expression to add a new column in the data source.
- 9. Use the Donut Chart for Profit Analysis.
- 10. Analyse the more profitable day from the sales analysis table using Bar Chart in Power BI.

