**## POWERBI QUESTIONS**

\*\*Introduction to Power BI\*\*

\*\*Answer the following Questions:\*\*

1. What is Power BI?

2. Who uses Power BI?

3. What is the main purpose of Power BI?

4. How is a Power BI file shared or published?

5. What is PBIX?

1. What are the products available in the market for Power BI?

2. What are the different steps involved in Power BI workflow architecture?

3. Why is visualization a major building block of Power BI?

4. Explain any 3 key benefits of Power BI in the data analytics domain.

5. What are the different responsibilities of a Power BI developer in the market?

\*\*Power BI Desktop & Power Query\*\*

\*\*Answer the following:\*\*

1. What are the different data sources we can connect to Power BI? Submit screenshots for any 3 data connectivity options.

2. What is the new name of the Power BI dataset?

3. What are the different components of the Power BI desktop tool?

4. Explain in brief the working of each component in Power BI.

\*\*Show the step-by-step approach to connect with the Sample-Superstore.xlsx dataset. Select the Order sheet in it.\*\*

\*\*Dataset Link:\*\* [Sample Superstore Dataset](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Power+BI/Power+BI+Desktop+and+Power+Query/SampleSuperstore+dataset.xlsx)

\*\*Note: Please upload the assignment in PDF format.\*\*

\*\*Connect with Employee data and perform the following tasks:\*\*

1. Create a full name column.

2. Create email IDs in the format Firstname\_Lastname@gmail.com for each employee.

\*\*Dataset Link:\*\* [Employee Dataset](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Power+BI/Power+BI+Desktop+and+Power+Query/Employee.xlsx)

\*\*Note: Please upload the assignment in PDF format.\*\*

\*\*Clean and Transform Data\*\*

\*\*Connect to the IPL Wikipedia link and solve the following:\*\*

1. Connect with the IPL Wikipedia link and load tables: Table 3, Position of teams in IPL, Number of titles.

2. For Table 3, remove Rs. and crore from the salary column. Convert the datatype of the salary column to integer.

3. Transpose the Position of teams in IPL.

4. Remove total and average salary rows available at the bottom in Table 3.

5. Split the IPL team column in Table 3 to separate the team name and abbreviation.

6. Create a conditional column showing the winner of 2024 in front of the KKR team and “better luck next time” for the remaining teams.

\*\*Link:\*\* [IPL Wikipedia](https://en.wikipedia.org/wiki/Indian\_Premier\_League)

\*\*Modeling with Power BI\*\*

\*\*Answer the Following Questions:\*\*

1. What are the Power Pivot components and what are their tasks?

2. What are the different views in Power BI Desktop? Explain each and its working.

3. What are star and snowflake schemas? Provide diagrammatic explanations.

4. What is a dimension table and a fact table?

\*\*Use the IPL dataset from the link below to create a one-to-many relationship between Table 3 and the Number of Titles table.\*\*

\*\*Link:\*\* [IPL Wikipedia](https://en.wikipedia.org/wiki/Indian\_Premier\_League)

\*\*Analyze the type of schema available in the given Contoso Sales file.\*\*

\*\*Dataset Link:\*\* [Contoso Sales Sample for Power BI Desktop](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Power+BI/DAX/Contoso+Sales+Sample+for+Power+BI+Desktop.pbix)

\*\*Note:\*\*

1. Open the above PBIX file in Power BI Tool.

2. Please upload the assignment in PDF format.

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\*\*Data Analysis Expressions (DAX)\*\*

\*\*Attempt the following Questions:\*\*

1. Calculate Total Sales Amount in the Contoso Sales file.

2. Create a Profit column using an arithmetic operator by subtracting Sales Amount and Total Cost.

3. Calculate total profit value for product key 800.

4. Replace "Contoso Ltd" manufacturer name with "Contoso Pvt Ltd" using a DAX function.

5. Create a table with the start date mentioned in the dataset and the end date as today’s date using DAX.

6. Perform division on Sales Amount and Total Cost for product key 800.

\*\*Dataset Link:\*\* [Contoso Sales Sample](https://drive.google.com/file/d/1\_zUcK-BgD\_hNhfLvVIIcoLv4pYhk3Ldi/view?usp=sharing)

\*\*Note:\*\*

1. Open the above PBIX file in Power BI Tool.

2. Please upload the assignment in PDF format with proper screenshots.

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\*\*Answer the following:\*\*

1. What is DAX? Why is it used?

2. What are the data types supported by DAX?

3. What is the difference between a calculated column and a measure?

4. How to exclude all filters while calculating any measure?

5. What are circular dependencies? How can you avoid creating them in your DAX expressions?

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\*\*Data Visualization\*\*

\*\*Answer the following Questions:\*\*

1. What are the different charts supported in Power BI?

2. When should you use each chart? Explain with an example.

3. What is the difference between matrix visual and table visual?

\*\*Attempt the following Questions:\*\*

1. Plot product name-wise Sales Amount using a bar chart, applying Brand Name as the legend.

2. Apply images as Home and Forward arrows for page navigation.

3. Import a custom visual as a Gantt bar chart and apply it to Channel Name-wise Profit.

\*\*Dataset Link:\*\* [Contoso Sales Sample for Power BI Desktop](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Power+BI/DAX/Contoso+Sales+Sample+for+Power+BI+Desktop.pbix)

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\*\*Introduction to Power BI Dashboard, Q&A, and Data Insights\*\*

\*\*Attempt the Following:\*\*

1. Create a dashboard on the Contoso Sales file that highlights Product Analysis and Sales Analysis.

2. Apply Power BI Q&A on the created dashboard.

3. Apply a Smart Narrative on a specific chart and the complete dashboard.

4. Apply Key Influencer for analyzing Sales Amount, explaining it by Manufacturer, Product Name, and Continent Name.

\*\*Dataset Link:\*\* [Contoso Sales Sample for Power BI Desktop](https://itv-contentbucket.s3.ap-south-1.amazonaws.com/Exams/Power+BI/DAX/Contoso+Sales+Sample+for+Power+BI+Desktop.pbix)

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\*\*Power BI Service\*\*

\*\*Answer the following questions:\*\*

1. What is Power BI Service?

2. What are the benefits of Power BI Service?

\*\*Answer the following:\*\*

1. After how much duration of inactivity will the scheduled refresh pause?

2. For which licensed user is dataflow creation possible?

\*\*Explain the multiple ways to create a new dataflow.\*\*

\*\*Explain how to access the report in Power BI Service from PowerPoint.\*\*

\*\*Publish the following:\*\*

Publish the Contoso File Dashboard on Power BI Service.

\*\*Link:\*\* [Contoso File](https://drive.google.com/file/d/1\_zUcK-BgD\_hNhfLvVIIcoLv4pYhk3Ldi/view?usp=share\_link)

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\*\*Power BI Direct Connectivity\*\*

\*\*Answer the following Questions:\*\*

1. What are the three main connectivity modes in Power BI?

2. What are the two gateways in Power BI?

3. How does a gateway work? Explain with a diagram.

4. What is the difference between cloud-based data and on-premises data?

5. What are the steps to use a gateway