### 1. ****What is the importance of data visualization?****

Data visualization transforms raw data into meaningful visuals, helping users quickly understand trends, outliers, and insights. It enables faster, more informed decision-making by making complex information more accessible and easier to interpret.

### 2. ****When do you use a pie chart vs bar chart?****

**Pie chart**: Best for showing parts of a whole with **limited categories** (3–5 max). For example, showing percentage share of segments.

**Bar chart**: Ideal for comparing **quantities across categories**, especially when there are many items. It's more accurate for assessing value differences.

### 3. ****How do you make visualizations more engaging?****

Use clean, uncluttered layouts

Apply meaningful color schemes (e.g., red for loss, green for growth)

Add labels, callouts, or annotations for key takeaways

Focus on interactive elements (filters, tooltips) if using dashboards

Always tell a story behind the data — not just display it

### 4. ****What is data storytelling?****

Data storytelling is the art of combining visuals, narrative, and insights to communicate a clear message or recommendation. It moves beyond raw charts to explain **what the data says**, **why it matters**, and **what actions should be taken**.

### 5. ****How do you avoid misleading visualizations?****

Use consistent and correct scales

Avoid manipulating axes to exaggerate trends

Do not use 3D effects or overuse pie charts

Label data clearly and include context (e.g., timeframe, units)

Always represent data honestly without cherry-picking

### 6. ****What are best practices in dashboard design?****

Show key KPIs at the top

Prioritize clarity and simplicity

Group related visuals together

Use consistent colors and fonts

Provide filters for user-driven exploration

Always include a takeaway or summary insight per section

### 7. ****What tools have you used for visualization?****

**Power BI** – for creating interactive dashboards with filters and drill-downs

**Tableau** – for building intuitive visual stories

**Excel** – for quick charts and static reports

**Canva / Figma** – for design mockups and slide visuals (if relevant)