**1. How does Power BI handle large datasets in the Online Service, and what is the role of Premium Capacity in this?**

Power BI Online Service supports large datasets through optimized compression techniques and incremental data refresh. However, it has size limits (typically 1 GB in shared capacity). **Premium Capacity** extends this by allowing much larger dataset sizes (up to 400 GB per dataset), more frequent refresh rates, and dedicated resources, ensuring better performance and reliability for enterprise-scale data models.

**2. What are the differences between Import mode, DirectQuery, and Live Connection in Power BI Service?**

* **Import Mode**: Data is loaded into Power BI and stored in cache. Offers fast performance but requires scheduled refreshes and limited by dataset size.
* **DirectQuery**: Queries the data source in real-time without storing data in Power BI. Lower and slower performance because of dependency on the source system but ensures real-time data.
* **Live Connection**: Used primarily with Analysis Services or Power BI Datasets. It behaves like DirectQuery but keeps the model on the source server, ideal for enterprise-scale semantic models.

**3. Explain deployment pipelines in Power BI Online. What stages do they include?**

Deployment pipelines provide a structured way to move Power BI content across development stages:

* **Development**: Where reports and models are built and tested.
* **Test**: Reports are tested with near-production data and reviewed for accuracy.
* **Production**: Finalized content is published and consumed by end users.  
  Pipelines help maintain version control and reduce risk when deploying updates.

**4. How can Power BI Service integrate with Microsoft Teams or SharePoint for collaboration?**

Power BI integrates easily with **Teams** by allowing you to embed reports directly into Teams channels or chats using the Power BI app. This lets team members interact with reports without leaving Teams.

With **SharePoint**, you can embed Power BI reports in a SharePoint Online page using the Power BI web part. This supports better visibility and sharing within your organization without needing everyone to open Power BI separately.

**5. What is the XMLA endpoint in Premium and how does it benefit developers or enterprise BI teams?**

The **XMLA (XML for Analysis) endpoint** in Power BI Premium allows access to datasets for advanced modeling and management through tools like SSMS, Tabular Editor, and SQL Server Profiler. It enables read/write access to datasets, supports automation, version control, and integration into enterprise BI workflows.

**6. Describe how usage metrics and audit logs work in Power BI Service.**

* **Usage Metrics:** These are built-in reports that show how reports and dashboards are being used—like how many views, who viewed them, and when. This helps report owners understand the impact and reach of their content.
* **Audit Logs:** These are available in Microsoft 365 and provide more detailed tracking, such as user sign-ins, sharing activities, and data exports. They are essential for compliance and security auditing.

**7. How do you manage workspace access and permissions for different users?**

Workspace roles in Power BI include:

* **Admin:** Full control over everything.
* **Member:** Can edit content and publish reports.
* **Contributor:** Can add content but not modify or delete existing items.
* **Viewer:** Can only view content.  
  Permissions can also be managed using **Microsoft 365** groups or Active Directory security groups.

**8. How can data governance be enforced in Power BI Service?**

Data governance is enforced through:

* **Data classification and labeling** using Microsoft Purview or sensitivity labels.
* **Certified/Promoted datasets and reports** to guide users to trusted sources.
* **Tenant settings** to control sharing, export, and publish capabilities.
* **Row-Level Security (RLS)** and **Azure Active Directory** to enforce access rules.

**9. What are the limitations of Row-Level Security when using DirectQuery or Live Connection?**

* **Performance**: RLS can slow down queries, especially with large datasets.
* **Complex Models**: Implementing RLS across multiple tables or relationships may be difficult.
* **Limited with Live Connection**: RLS is defined in the source model (like Analysis Services) and cannot be managed in Power BI.
* **Debugging**: Harder to test and debug RLS in DirectQuery scenarios due to reliance on real-time queries.

**10. Explain how you can refresh a dataset via Power Automate or REST API.**

* **Power Automate**: You can create a flow that uses the **“Refresh a dataset”** action in Power BI. This is useful for scheduling refreshes or triggering them after another process (like data loading) completes.
* **REST API**: Developers can use the **Power BI REST API** to programmatically trigger dataset refreshes. This is ideal for automation, integrating with other apps, or building custom workflows.

Both methods help maintain up-to-date data in reports without relying solely on scheduled refreshes.