Section 1: Basics & Architecture (Detailed Q&A)

Q1. What is IBM Maximo?

IBM Maximo is an Enterprise Asset Management (EAM) tool that allows organizations to manage their assets throughout their lifecycle. It helps track work orders, preventive maintenance, inventory, procurement, contracts, and services.

It improves asset utilization, reduces downtime, and ensures compliance with maintenance schedules.

Interview phrasing:

Maximo is an EAM application used globally across industries like Oil & Gas, Manufacturing, Utilities, and Transportation. I have worked on modules such as Work Orders, Assets, and Preventive Maintenance in my projects.

Q2. What is the architecture of Maximo?

Maximo follows a three-tier architecture:

1. Presentation Tier (UI): Web-based interface built on JSP/HTML, accessible via a browser.

2. Application Tier: Business logic, automation scripts, workflows, and MBO framework run here. Hosted on WebSphere or Liberty server.

3. Database Tier: Stores all Maximo data in a relational database like DB2, Oracle, or SQL Server.

Maximo can also be deployed in a clustered environment where multiple JVMs handle different workloads.

Q3. What are the main modules in Maximo?

Assets: Track equipment, locations, and lifecycle.

Work Orders: Manage maintenance tasks (corrective & preventive).

Inventory: Handle spare parts and materials.

Purchasing/Contracts: Procurement and vendor management.

Preventive Maintenance (PM): Scheduling recurring tasks.

Service Requests/Incidents: Handle customer or employee requests.

Interview tip: Always mention which modules you have hands-on experience with.

Q4. What are MBOs in Maximo?

MBO stands for Maximo Business Object.

It is the Java object representation of database records in Maximo.

Mbo: Represents a single row/record.

MboSet: Represents a collection of records.

MboValue: Represents a single attribute/field.

Example:

```
mbo.getString("DESCRIPTION")   # Fetch WO description

mbo.setValue("STATUS", "APPR") # Change status to Approved
```

Q5. What are Domains in Maximo?

Domains define data validation and value lists for attributes.

Types:

ALN (Alphanumeric): Stores text values.

Numeric: Stores numeric values.

Table Domain: Fetches values from another table.

Crossover Domain: Copies values from one object/field to another.

Synonym Domain: Stores internal value vs display value.

Q6. What is a Crossover Domain?

A Crossover Domain copies field values automatically from one object to another.

Example: When selecting an Asset in Work Order, its Location auto-fills.

Used to reduce user input errors and enforce consistency.

Interview phrasing:

In my project, I configured a crossover domain to copy vendor details automatically from Asset to WO whenever the asset was selected.

Q7. What is the difference between Maximo 7.5, 7.6, and MAS 8?

Maximo 7.5: Legacy version, limited features.

Maximo 7.6: Enhanced UI, improved security, automation scripts, REST APIs.

MAS 8: Cloud-native, containerized deployment on Red Hat OpenShift, subscription-based licensing, AI-driven insights.

Q8. What is the significance of maximo.properties file?

It contains system configuration values like database connection details, integration settings, and property values.

Any changes require Maximo restart.

Example: Changing database host or SMTP server.

Q9. What is clustering in Maximo?

Clustering means running Maximo on multiple JVMs to handle workloads efficiently.

UI JVM: Handles user sessions.

Cron JVM: Runs background cron tasks.

Report JVM: Runs BIRT/Cognos reports.

Integration JVM: Handles MIF transactions.

This ensures scalability and high availability.

Q10. What are Cron Tasks in Maximo?

Cron Tasks are scheduled background jobs that perform tasks automatically.

Examples:

PMWoGenCronTask: Generates Work Orders from PMs.

RBAuditCronTask: Cleans audit records.

LDAPSYNC: Syncs users from LDAP.

Interview phrasing:

I configured PMWoGenCronTask in my project to auto-generate weekly preventive maintenance work orders.

Q11. What are different JVMs in Maximo?

UI JVM: For user interface and logins.

Cron JVM: For cron tasks and escalations.

Report JVM: For BIRT/Cognos reporting.

Integration JVM: For MIF-related transactions.

Helps in load balancing and avoids performance issues.

Q12. How do you promote changes from Development to Test to Production?

Using Migration Manager in Maximo:

1. Create a package (object, domain, automation script, workflow).

2. Export from Development.

3. Import into Test/Production.

Interview phrasing:

I used Migration Manager to move automation scripts and workflow changes from Dev to Prod instead of direct DB updates, ensuring audit compliance.