**Question Block First :**

**Answer 1.1**

1. Project Scope & Overview.
2. Testing Phases & Test Approach - System Testing, Database, System Integration.
3. Testing Type  & Testing Tools- WebTesting using Protector Framework, API- using Karate/postman, Performance testing, penetration testing, rest assured, Database testing  - Master Test Plan.
4. Test Management - Jira, Agile Manager, Confluence.
5. Project testing Scope.
6. Tools & Technology
7. Resource Planning - Man-Days/Resources.
8. Training - Any System - External Integration with Third Party Tools.
9. Dependency- Internal Dep, External Dep., Data Dep.,
10. Test Environment Dependency - CIT, SIT, & Pr-Prod, Prod.
11. Entry Exit Criteria- No open Sev1 defect, Coverage part.
12. Release Control & Defect Management Process - Tools Defined.- like Jira
13. Team Involvement - Dev-ops, Development, Testing, Project, Performance.
14. Risk Analysis
15. Review & Approval.
16. Escalations Matrix.

**Answer 1.2**

Challenge

1. External Integration with Third Parties
2. Database Integration.
3. Cloud Environment set-up.
4. Data Dependency & Data Migration.
5. Down-time - Deployment & Environment consistent.

**Answer 1.3**

Automation Strategy-

1. Defined Project Scope for Automation.
2. Automation Test Coverage - Defined User Stories.
3. Test Tools used like Java, Selenium, Cucumber, Junit/TestNG, Automation Reporting Tools like Cucumber, Jira or Serenity Or Customised reporting tools.
4. Git or Bitbucket Access.
5. Number of Automation resources per scrum.

6. Docker/Cloud/ Kubernetes/Jenkins/GIT-Lab  - Automation Integration with Testing Environments..
7. Access Credentials : Database, application server, Api & Application Server Access, Cloud & GIT-Lab.
8. Browser Testing - Like Chrome, Mozilla, Safari with version.
9. Device & Platform Scope.
10. Authentication & Authentication- Oauth1.0 or 2.0, Sign-on API Details.
11. Perfomance, Penetration Testing Scope.
12. Schema Validation, Authentication & Authorzation validation, POST, PUT, PATCH.
13. Automation Closure report.
14. Batch Execution Via Jenkins Integation. - Frequency ?

**Answer 1.4**

1. Dev-ops & Automation agreed on supporting CICD approach & Tools.
2. Defined the deployment process.
3. Availability of testing environment.
4. Integration of Automation projects in GIT/Bit-bucket with CICD pipeline.
5. Publishing Auto-generated daily report & mails confirming for stackholders.
6. Analysis the report & fixed the issue after the execution, if any related to Automation code or Scripts.
7. Maintaining the code repositories.

**Question Block Second :**
**Answer 2.1 & 2.2**
**2.1** I recommend Agile Scrum methodologies for this project :

**2.2 <u>Reason:</u>**

Today’s digital enterprises are looking to scale the speed, productivity, and innovation of agile and DevOps across the organization.
Learn how a single platform can help achieve this with three core elements, including:

- An automated change management engine that provides appropriate Solutions of the time currently required.
- Push-button audits that use real-time pipeline data to provide instant reporting.
- Pipeline visualization features that aggregate data from the entire DevOps toolchain for insight into project status and traceability.
- Enhance organisational and team collaboration via increased visibility, understanding and purpose of work

- Team and personal competency and capability development through skills/knowledge sharing
- Improved relationships with customers and other stakeholders

**Question Block Third :**
**Answer 3.1 , 3.2 & 3.3.**

3.1 Test Team Configuration : Functional Resources having domain knowledge , Automation Resources having good experience in Automation, Test Manager.

3.2 Cross-functional Team : API testing experience, Automation experience, Database Experience, Dev-ops, Swagger & Json, Java-Language,
Oracle/MongoDB, Postman\SoapUI Tools, GIT/BIT-bucket.

3.3 Team Player, Productive, Pro-Active, Open-Minded, Approachable.

**Question Block Four:**
**4.1** Sprint Planning. - Understanding the scope & scenario coverage of Story points for specific Sprint.
**4.2** Test Traceability Matrix helps to understand the test scenario cases coverage & requirements coverage.
**4.3** Generally, Unit level of Testing is coverage by Developers & Functionality/Regression/Integration Testing covered by testers.

**Question Block Five:**
**5.1** Rally- Agile Central -> Integration with Automation tools, Defect Management, Jira Integration & Report generation.
**5.2 J-Meter/ Load Runner.**
**5.3 PostMan/ Karate Framework.**
**5.4 Selenium & Cucumber.**
**5.5 Dev-ops - Docker & Reporting tools like Serenity, Cucumber, Extent Report or Customized Report.**