**Prompt : -** Identify Key arguments from the document

**🔑 Key Arguments in the Document**

**1. API Testing Is Critical for Modern Software Reliability**

* APIs are the backbone of system communication and business logic.
* Early testing of APIs prevents cascading failures and reduces cost.

**Supporting Quotes:**

* “API testing finds out if that logic works as intended.”
* “By testing APIs before the UI is complete, defects can be identified earlier, reducing downstream issues.”
* “API issues identified early are cheaper to fix than UI-related defects discovered later.”

**2. API Testing Covers Both Functional and Non-Functional Aspects**

* It validates correctness, performance, security, and reliability.
* It spans integration and system testing levels.

**Supporting Quotes:**

* “The primary focus areas include: Functionality… Performance… Security… Reliability.”
* “API testing is generally categorized as functional testing… However, API testing also involves non-functional testing types.”
* “API testing is considered a part of integration testing… API testing can be a part of system testing when it is used to validate end-to-end workflows.”

**3. Effective API Testing Requires Understanding of Core Concepts**

* Testers must grasp endpoints, methods, payloads, headers, assertions, and status codes.

**Supporting Quotes:**

* “Endpoints are the URLs where APIs are accessed.”
* “APIs use HTTP methods to perform operations… GET, POST, PUT, DELETE.”
* “Assertions validate the API’s behavior by checking: Response Status Codes… Response Body… Performance.”

**4. Security and Performance Testing Are Non-Negotiable**

* APIs must be tested for vulnerabilities, authentication, rate limiting, and scalability.

**Supporting Quotes:**

* “Security testing focuses on protecting APIs from unauthorized access, data breaches, and malicious attacks.”
* “The API performance testing evaluates the speed, scalability, and reliability of APIs under various conditions.”

**5. Test Case Design Should Be Modular, Data-Driven, and Automated**

* Reusability, parameterization, and automation are emphasized for scalability.

**Supporting Quotes:**

* “Create reusable test scripts for common actions like authentication or header validation.”
* “Use tools like REST Assured or Postman to automate test case execution.”
* “Data parameterization means testing an API with different sets of input test data without hardcoding values.”

**6. Tool Proficiency Is Essential for QA Success**

* Postman, SoapUI, and REST Assured are highlighted for manual and automated testing.

**Supporting Quotes:**

* “Postman is a powerful API testing tool…”
* “SoapUI provides advanced features for functional, security, and load testing…”
* “REST Assured is a Java library that simplifies writing automated tests for REST APIs.”

**7. Mocking, CI Integration, and Error Handling Strengthen Test Strategy**

* Simulated APIs and CI pipelines improve coverage and reliability.

**Supporting Quotes:**

* “Mocking and stubbing means creating simulated versions of APIs…”
* “CI enables the API tests to be automatically executed whenever new code is integrated.”
* “Robust error handling allows your tests to remain reliable and provide meaningful feedback.”

**8. Interview Preparation Requires Scenario-Based Thinking**

* Candidates should be ready to explain test design, validation logic, and real-world examples.

**Supporting Quotes:**

* “Practice testing common API flows like CRUD operations and error handling.”
* “Structure your response by explaining: Test Objective… Test Design… Validation.”