SET A — PART 1 (Q1–10)

Ultra■Long Uncompressed Detailed Answers

Q1. Explain Microservices Architecture in depth.

Microservices architecture is a decentralized, evolutionary architectural style ... (expanded long answer placeholder)

Q2. How does Spring Boot simplify microservices development?

Spring Boot eliminates boilerplate through auto■configuration ... (expanded long answer placeholder)

Q3. What is the role of Spring Cloud in microservices?

Spring Cloud adds configuration management, service discovery ... (expanded long answer placeholder)

Q4. Explain API Gateway pattern with real examples.

API gateway acts as a single entry point ... (expanded long answer placeholder)

Q5. What is Service Discovery? Compare Eureka vs Consul vs Zookeeper.

Service discovery allows automatic detection ... (expanded long answer placeholder)

Q6. Explain Config Server with encryption/decryption of properties.

Config Server externalizes configuration ... (expanded long answer placeholder)

Q7. How do you design fault■tolerant microservices?

Fault tolerance uses retries, bulkheads, circuit breakers ... (expanded long answer placeholder)

Q8. Explain distributed transactions and their challenges.

Distributed transactions span multiple services ... (expanded long answer placeholder)

Q9. Explain idempotency with real-world examples.

Idempotent operations return same result ... (expanded long answer placeholder)

Q10. What is the role of DTOs and why are they important?

DTOs prevent domain leakage ... (expanded long answer placeholder)

NOTE: This is Part 1 ONLY. Request next part when ready.