

## **Kubernetes and Cloud Security Associate (KCSA)**

### I. Introduction to Cloud Computing

- Cloud Computing Fundamentals
- Cloud Service Models
- Cloud Deployment Models
- Cloud Security Principles

### II. Introduction to Kubernetes

- Kubernetes Architecture
- Kubernetes Components and Concepts
- Kubernetes Networking
- Kubernetes Security
- Kubernetes Installation and Configuration

### III. Kubernetes Cluster Management

- Kubernetes Cluster Setup
- Kubernetes Cluster Administration
- Kubernetes Cluster Monitoring and Logging
- Kubernetes Cluster Backup and Recovery

### IV. Cloud Security

- Cloud Security Fundamentals
- Cloud Security Threats and Risks
- Cloud Security Controls and Best Practices
- Identity and Access Management in the Cloud

### V. Kubernetes Security

- Kubernetes Security Challenges
- Kubernetes Security Best Practices
- Kubernetes RBAC (Role-Based Access Control)
- Kubernetes Security Tools

### VI. Kubernetes Networking and Service Discovery

- Kubernetes Networking Overview
- Kubernetes Network Policies
- Kubernetes Service Discovery

- Kubernetes Load Balancing

## VII. Cloud Native Security

- Cloud Native Security Principles
- Cloud Native Security Controls
- Cloud Native Security Challenges
- Cloud Native Security Best Practices

## VIII. Kubernetes and Cloud Compliance

- Kubernetes and Cloud Compliance Overview
- Kubernetes and Cloud Compliance Controls
- Kubernetes and Cloud Compliance Challenges
- Kubernetes and Cloud Compliance Best Practices

## IX. Kubernetes and Cloud Security Testing

- Kubernetes and Cloud Security Testing Overview
- Kubernetes and Cloud Security Testing Types
- Kubernetes and Cloud Security Testing Tools
- Kubernetes and Cloud Security Testing Best Practices

## X. Kubernetes and Cloud Security in Production

- Kubernetes and Cloud Security in Production Overview
- Kubernetes and Cloud Security Monitoring
- Kubernetes and Cloud Incident Response
- Kubernetes and Cloud Security Governance