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**Time taken** 6 mins 40 secs

**Marks** 10.00/10.00

**Grade** **100.00** out of 100.00

### Question 1

Correct

Mark 1.00 out of 1.00

What component of Kubernetes is responsible for scheduling Pods on nodes?

- ☐ a. API Server
- ☒ b. Kubernetes Scheduler ✓
- ☐ c. Controller Manager
- ☐ d. Kubelet

### Question 2

Correct

Mark 1.00 out of 1.00

What is the function of etcd in Kubernetes?

- ☐ a. It schedules workloads across nodes
- ☐ b. It balances network traffic
- ☐ c. It runs application containers
- ☒ d. It acts as the primary database for cluster state information ✓

### Question 3

Correct

Mark 1.00 out of 1.00

Which of the following is NOT a core component of the Kubernetes Master Node?

- ☐ a. Controller Manager
- ☒ b. Kubelet ✓
- ☐ c. API Server
- ☐ d. etcd

**Question 4**

Correct

Mark 1.00 out of 1.00

Which component ensures that the desired state of the cluster matches the actual state?

- ☐ a. API Server
- ☐ b. Kube Proxy
- ☐ c. Kubelet
- ☒ d. Controller Manager ✓

**Question 5**

Correct

Mark 1.00 out of 1.00

What is the primary purpose of Kubernetes?

- ☐ a. Replacing virtual machines
- ☐ b. Managing databases
- ☒ c. Automating the deployment, scaling, and management of containerized applications ✓
- ☐ d. Providing a programming language for cloud applications

**Question 6**

Correct

Mark 1.00 out of 1.00

What is the function of the Kubernetes API Server?

- ☒ a. It provides an interface for managing the cluster ✓
- ☐ b. It runs application workloads
- ☐ c. It stores the cluster state persistently
- ☐ d. It balances network traffic

**Question 7**

Correct

Mark 1.00 out of 1.00

What does Kube Proxy do in Kubernetes?

- ☐ a. It provides persistent storage for Pods
- ☐ b. It schedules Pods on nodes
- ☐ c. It stores all cluster information
- ☒ d. It manages networking rules and service discovery ✓

**Question 8**

Correct

Mark 1.00 out of 1.00

How do Worker Nodes communicate with the Kubernetes Control Plane?

- ☐ a. Through SSH connections
- ☒ b. Using REST API calls via the API Server ✓
- ☐ c. By writing logs to disk
- ☐ d. Through etcd directly

**Question 9**

Correct

Mark 1.00 out of 1.00

Which of the following best describes the role of the Kubelet?

- ☐ a. It runs on the master node to manage API requests
- ☐ b. It stores cluster configuration data
- ☒ c. It ensures that containers are running on a node and reports status to the control plane ✓
- ☐ d. It schedules workloads to different nodes

**Question 10**

Correct

Mark 1.00 out of 1.00

What is a Kubernetes Pod?

- ☒ a. A collection of containers that share network and storage resources ✓
- ☐ b. A database service in Kubernetes
- ☐ c. A security mechanism for running containers
- ☐ d. A virtual machine in Kubernetes