

Time left 0:09:40

**Question 1**

Not yet answered

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Which device connects networks using different protocols?

- a. Switch
- b. Bridge
- c. Router
- d. Gateway

[Clear my choice](#)**Question 2**

Not yet answered

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Dynamic method dispatch depends on:

- a. Compiler
- b. Package type
- c. Reference type
- d. Object type

**Question 3**

Not yet answered

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Which collection guarantees sorted order?

- a. LinkedList
- b. TreeSet
- c. HashSet
- d. HashMap

**Question 4**

Not yet answered

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Adjacency lists are efficient when graphs are:

- a. Weighted
- b. Sparse
- c. Directed
- d. Dense

**Question 5**

Not yet answered

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Which OSI layer performs segmentation of data?

- a. Network
- b. Application
- c. Transport
- d. Session

**Question 6**

Not yet answered

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Docker image instructions are stored in:

- a. Dockerfile
- b. Manifest
- c. Containerfile
- d. Imagefile

**Question 7**

Not yet answered

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Least privilege in IAM means:

- a. Grant all permissions
- b. Grant only required permissions
- c. Grant permissions randomly
- d. Disable all permissions

**Question 8**

Not yet answered

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Thrashing occurs when:

- a. TLB miss rate increases
- b. Too many processes compete for limited frames
- c. CPU burst time is small
- d. Page size is small

**Question 9**

Not yet answered

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ICMP is used for:

- a. Routing
- b. Error reporting and diagnostics
- c. Assigning MAC addresses
- d. Name resolution

**Question 10**

Not yet answered

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Height of a complete binary tree is:

- a.  $O(n \log n)$
- b.  $O(1)$
- c.  $O(n)$
- d.  $O(\log n)$

**Question 11**

Not yet answered

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If an exception is thrown inside catch:

- a. finally is skipped
- b. Program continues
- c. It propagates
- d. JVM ignores it

**Question 12**

Not yet answered

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Which command starts Minikube?

- a. kubectl start
- b. minikube start
- c. kubeadm init
- d. kubectl run

**Question 13**

Not yet answered

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Round Robin scheduling works best when the time quantum is:

- a. Extremely small
- b. Moderately sized
- c. Extremely large
- d. Zero

**Question 14**

Not yet answered

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Duplicate ACKs in TCP trigger:

- a. Half-open connection
- b. Congestion avoidance
- c. Fast retransmit
- d. Slow start

**Question 15**

Not yet answered

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Which file lists untracked files to ignore?

- a. settings.json
- b. ignore.config
- c. .gitconfig
- d. .gitignore

**Question 16**

Not yet answered

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Segmentation divides memory based on:

- a. Hardware blocks
- b. Cache lines
- c. Logical program units
- d. Equal-sized pages

**Question 17**

Not yet answered

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If no constructor is defined, Java provides a:

- a. Private constructor
- b. Copy constructor
- c. Default no-argument constructor
- d. Parameterized constructor

**Question 18**

Not yet answered

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Which IPC mechanism preserves message boundaries?

- a. Pipes
- b. Shared Memory
- c. Signals
- d. Message Queues

**Question 19**

Not yet answered

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Thread synchronization prevents:

- a. Compilation
- b. Race conditions
- c. Object creation
- d. Parallel execution

**Question 20**

Not yet answered

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Circular linked lists are commonly used for:

- a. Dijkstra's algorithm
- b. QuickSort
- c. Round-robin scheduling
- d. DFS

**Question 21**

Not yet answered

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Jenkins auto-builds from GitHub using:

- a. Nightly cron jobs
- b. SSH keys
- c. Webhooks
- d. Manual triggers only

**Question 22**

Not yet answered

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Which system call creates a child process sharing the parent's address space?

- a. waitpid()
- b. fork()
- c. vfork()
- d. clone()

**Question 23**

Not yet answered

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Function call management uses which structure?

- a. Graph
- b. Stack
- c. Heap
- d. Queue

**Question 24**

Not yet answered

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Splitting 10.0.0.0/23 into two equal subnets results in the first subnet:

- a. 10.0.1.0/24
- b. 10.0.0.0/24
- c. 10.0.0.0/25
- d. 10.0.2.0/24

**Question 25**

Not yet answered

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Min-heaps are used in:

- a. Bellman-Ford
- b. BFS
- c. DFS
- d. Dijkstra's algorithm