

Time left 0:09:40

**Question 1**

Not yet answered

Marked out of 1.00

Which device connects networks using different protocols?

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

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

Not yet answered

Marked out of 1.00

Dynamic method dispatch depends on:

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

**Question 3**

Not yet answered

Marked out of 1.00

Which collection guarantees sorted order?

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

**Question 4**

Not yet answered

Marked out of 1.00

Adjacency lists are efficient when graphs are:

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

**Question 5**

Not yet answered

Marked out of 1.00

Which OSI layer performs segmentation of data?

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

**Question 6**

Not yet answered

Marked out of 1.00

Docker image instructions are stored in:

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

**Question 7**

Not yet answered

Marked out of 1.00

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

Marked out of 1.00

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

Marked out of 1.00

ICMP is used for:

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

**Question 10**

Not yet answered

Marked out of 1.00

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

Marked out of 1.00

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

Marked out of 1.00

Which command starts Minikube?

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

**Question 13**

Not yet answered

Marked out of 1.00

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

Marked out of 1.00

Duplicate ACKs in TCP trigger:

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

**Question 15**

Not yet answered

Marked out of 1.00

Which file lists untracked files to ignore?

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

**Question 16**

Not yet answered

Marked out of 1.00

Segmentation divides memory based on:

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

**Question 17**

Not yet answered

Marked out of 1.00

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

Marked out of 1.00

Which IPC mechanism preserves message boundaries?

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

**Question 19**

Not yet answered

Marked out of 1.00

Thread synchronization prevents:

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

**Question 20**

Not yet answered

Marked out of 1.00

Circular linked lists are commonly used for:

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

**Question 21**

Not yet answered

Marked out of 1.00

Jenkins auto-builds from GitHub using:

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

**Question 22**

Not yet answered

Marked out of 1.00

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

Marked out of 1.00

Function call management uses which structure?

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

**Question 24**

Not yet answered

Marked out of 1.00

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

Marked out of 1.00

Min-heaps are used in:

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