

<b>Started on</b>	Tuesday, 18 November 2025, 11:34 AM
<b>State</b>	Finished
<b>Completed on</b>	Tuesday, 18 November 2025, 11:38 AM
<b>Time taken</b>	3 mins 18 secs
<b>Marks</b>	17.00/20.00
<b>Grade</b>	<b>85.00</b> out of 100.00

**Question 1**

Complete

Mark 1.00 out of 1.00

In TCP, which mechanism ensures that the sender does not overwhelm the receiver?

- ☒ a. Flow Control
- ☐ b. Slow Start
- ☐ c. Congestion Control
- ☐ d. Error Control

**Question 2**

Complete

Mark 1.00 out of 1.00

Internal fragmentation occurs when—

- ☒ a. allocated memory is larger than requested
- ☐ b. requested memory is larger than allocated
- ☐ c. memory is scattered
- ☐ d. processes swap too frequently

**Question 3**

Complete

Mark 1.00 out of 1.00

The main purpose of a semaphore is to—

- ☐ a. Speed up disk access
- ☐ b. Allocate memory effectively
- ☒ c. Provide process synchronization
- ☐ d. Increase CPU throughput

**Question 4**

Complete

Mark 1.00 out of 1.00

What happens if a class has at least one pure virtual function?

- ☐ a. It is automatically instantiated
- ☒ b. It becomes an abstract class
- ☐ c. It cannot be inherited
- ☐ d. It cannot have constructors

**Question 5**

Complete

Mark 1.00 out of 1.00

What is the purpose of a subnet mask?

- ☐ a. To determine the IP class
- ☐ b. To encrypt traffic
- ☒ c. To separate network and host portions of an IP
- ☐ d. To identify the MAC address

**Question 6**

Complete

Mark 0.00 out of 1.00

What is the size of an empty class in C++?

- ☐ a. 2 bytes
- ☐ b. Depends on compiler
- ☒ c. 0 bytes
- ☐ d. 1 byte

**Question 7**

Complete

Mark 1.00 out of 1.00

Which C++ feature allows the same function name but different parameters?

- ☐ a. Encapsulation
- ☒ b. Function Overloading
- ☐ c. Virtualization
- ☐ d. Inheritance

**Question 8**

Complete

Mark 1.00 out of 1.00

Which collection class maintains insertion order?

- ☐ a. HashSet
- ☐ b. TreeMap
- ☐ c. HashMap
- ☒ d. LinkedHashMap

**Question 9**

Complete

Mark 1.00 out of 1.00

Which device operates at the Network Layer?

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

**Question 10**

Complete

Mark 1.00 out of 1.00

Which exception is thrown when a thread is waiting and interrupted?

- ☐ a. IOException
- ☐ b. TimeoutException
- ☒ c. InterruptedException
- ☐ d. RuntimeException

**Question 11**

Complete

Mark 1.00 out of 1.00

Which keyword is used to inherit a class in Java?

- ☐ a. implement
- ☐ b. inherits
- ☒ c. extends
- ☐ d. super

**Question 12**

Complete

Mark 1.00 out of 1.00

Which method is used to start a thread in Java?

- ☒ a. start()
- ☐ b. execute()
- ☐ c. init()
- ☐ d. run()

**Question 13**

Complete

Mark 1.00 out of 1.00

Which of the following is a deadlock prevention technique?

- ☐ a. Banker's algorithm
- ☐ b. Preempt all resources from a process
- ☒ c. Make processes request all resources at start
- ☐ d. Resource allocation graph

**Question 14**

Complete

Mark 1.00 out of 1.00

Which of the following is NOT a feature of Java?

- ☐ a. Bytecode execution
- ☐ b. Platform independence
- ☒ c. Multiple inheritance through classes
- ☐ d. Automatic garbage collection

**Question 15**

Complete

Mark 1.00 out of 1.00

Which of the following is NOT a feature of UDP?

- ☒ a. Connection-oriented
- ☐ b. Fast transmission
- ☐ c. Suitable for real-time applications
- ☐ d. No retransmission

**Question 16**

Complete

Mark 1.00 out of 1.00

Which of the following is true about virtual functions?

- ☐ a. They cannot be overridden
- ☐ b. Their calls are resolved at compile time
- ☒ c. They enable runtime polymorphism
- ☐ d. They cannot be inherited

**Question 17**

Complete

Mark 0.00 out of 1.00

Which operator cannot be overloaded?

- ☒ a. ()
- ☐ b. ::
- ☐ c. []
- ☐ d. +

**Question 18**

Complete

Mark 1.00 out of 1.00

Which process state indicates that the process is waiting for I/O?

- ☐ a. Running
- ☐ b. New
- ☐ c. Ready
- ☒ d. Blocked

**Question 19**

Complete

Mark 1.00 out of 1.00

Which protocol is responsible for converting domain names to IP addresses?

- ☐ a. ICMP
- ☐ b. ARP
- ☐ c. DHCP
- ☒ d. DNS

**Question 20**

Complete

Mark 0.00 out of 1.00

Which scheduling algorithm may lead to starvation?

- ☐ a. FCFS
- ☐ b. Round Robin
- ☐ c. SJF
- ☒ d. Priority Scheduling