

<b>Started on</b>	Tuesday, 18 November 2025, 11:30 AM
<b>State</b>	Finished
<b>Completed on</b>	Tuesday, 18 November 2025, 11:35 AM
<b>Time taken</b>	4 mins 15 secs
<b>Marks</b>	16.00/20.00
<b>Grade</b>	<b>80.00</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. Congestion Control
- ☐ c. Error Control
- ☐ d. Slow Start

**Question 2**

Complete

Mark 1.00 out of 1.00

Internal fragmentation occurs when—

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

**Question 3**

Complete

Mark 1.00 out of 1.00

The main purpose of a semaphore is to—

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

**Question 4**

Complete

Mark 1.00 out of 1.00

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

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

**Question 5**

Complete

Mark 1.00 out of 1.00

What is the purpose of a subnet mask?

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

**Question 6**

Complete

Mark 1.00 out of 1.00

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

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

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

**Question 9**

Complete

Mark 1.00 out of 1.00

Which device operates at the Network Layer?

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

**Question 10**

Complete

Mark 1.00 out of 1.00

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

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

**Question 12**

Complete

Mark 1.00 out of 1.00

Which method is used to start a thread in Java?

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

**Question 13**

Complete

Mark 0.00 out of 1.00

Which of the following is a deadlock prevention technique?

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

**Question 14**

Complete

Mark 1.00 out of 1.00

Which of the following is NOT a feature of Java?

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

**Question 15**

Complete

Mark 1.00 out of 1.00

Which of the following is NOT a feature of UDP?

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

**Question 16**

Complete

Mark 0.00 out of 1.00

Which of the following is true about virtual functions?

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

**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. Blocked
- ☐ b. Running
- ☐ c. Ready
- ☐ d. New

**Question 19**

Complete

Mark 1.00 out of 1.00

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

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

**Question 20**

Complete

Mark 0.00 out of 1.00

Which scheduling algorithm may lead to starvation?

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