

All the Multiple Choice Question and Answer (MCQs) have been compiled from the books of Data Communication and Networking by the well known author **behrouz A forouzan**.

This Data Communication and Networking – **Congestion Control and Quality of Service** multiple choice Questions and Answers (MCQ) PDF covers the below lists of topics.

1. Stream socket Multiple Choice Question and Answer.
2. Datagram socket Multiple Choice Question and Answer.
3. Raw socket Multiple Choice Question and Answer.
4. Client-server model Multiple Choice Question and Answer.

Practice now to sharpen your concept.

1. In _____ we try to avoid traffic congestion.

- A. congestion control
- B. quality of service
- C. either (a) or (b)
- D. both (a) and (b)

2. In _____, we try to create an appropriate environment for the traffic

- A. congestion control
- B. quality of service
- C. either (a) or (b)
- D. both (a) and (b)

3. Traffic _____ are qualitative values that represent a data flow.

- A. controls

- B. descriptors
- C. values
- D. none of the above

4. The _____ defines the maximum data rate of the traffic

- A. peak data rate
- B. maximum burst size
- C. effective bandwidth
- D. none of the above

5. The _____ normally refers to the maximum length of time the traffic is generated at the peak rate.

- A. peak data rate
- B. maximum burst size
- C. effective bandwidth
- D. none of the above

6. The _____ is a function of three values: average data rate, peak data rate, and maximum burst size.

- A. peak data rate
- B. maximum burst size
- C. effective bandwidth
- D. none of the above

7. A _____ traffic model has a data rate that does not change.

- A. constant bit rate
- B. variable bit rate
- C. bursty
- D. none of the above

8. In the _____ traffic model, the rate of the data flow changes in time, with the changes smooth instead of sudden and sharp.

- A. constant bit rate
- B. variable bit rate
- C. bursty
- D. none of the above

9. In the _____ traffic model, the data rate changes suddenly in a very short time.

- A. constant bit rate
- B. variable bit rate
- C. bursty
- D. none of the above

10. _____ happens in any system that involves waiting.

- A. Congestion
- B. Jamming
- C. Error
- D. none of the above

Answer key for MCQ SET- 1	
Q-1	Correct Answer :congestion control
Q-2	Correct Answer :quality of service
Q-3	Correct Answer :descriptors
Q-4	Correct Answer :peak data rate
Q-5	Correct Answer :maximum burst size
Q-6	Correct Answer :effective bandwidth
Q-7	Correct Answer :constant bit rate

Q-8	Correct Answer :variable bit rate
Q-9	Correct Answer :bursty
Q-10	Correct Answer :Congestion

Congestion Control and Quality of Service multiple choice questions and answers MCQ Set-2

1. Congestion in a network or internetwork occurs because routers and switches have _____.

- A. tables
- B. queues
- C. crosspoints
- D. none of the above

2. In a network, when the load is much less than the capacity of the network, the delay is _____

- A. at a maximum
- B. at a minimum
- C. constant
- D. none of the above

3. In a network, when the load reaches the network capacity, the delay _____

- A. increases sharply
- B. decreases sharply
- C. remains constant
- D. cannot be predicted

4. In a network, when the load is below the capacity of the network, the throughput _____

- A. increases sharply
- B. increases proportionally with the load
- C. declines sharply
- D. declines proportionally with the load

5. In a network, after the load reaches the capacity, throughput _____

- A. increases sharply
- B. increases proportionally with the load
- C. declines sharply
- D. declines proportionally with the load

6. In _____ congestion control, policies are applied to prevent congestion before it happens

- A. open-loop
- B. closed-loop
- C. either (a) or (b)
- D. neither (a) nor (b)

7. In _____ congestion control, mechanisms are used to alleviate congestion after it happens

- A. open-loop
- B. closed-loop
- C. either (a) or (b)
- D. neither (a) nor (b)

8. The technique of _____ refers to a congestion control mechanism in which a congested node stops receiving data from the immediate upstream node or nodes

- A. backpressure
- B. choke packet
- C. implicit signaling
- D. explicit signaling

9. A _____ is a packet sent by a node to the source to inform it of congestion

- A. backpressure
- B. choke packet
- C. implicit signaling
- D. explicit signaling

10. In _____, there is no communication between the congested node or nodes and the source. The source guesses that there is a congestion somewhere in the network from other symptoms

- A. backpressure
- B. choke packet
- C. implicit signaling
- D. explicit signaling

Answer key for MCQ SET- 2	
Q-1	Correct Answer :queues
Q-2	Correct Answer :at a minimum
Q-3	Correct Answer :increases sharply

Q-4	Correct Answer :increases proportionally with the load
Q-5	Correct Answer :declines sharply
Q-6	Correct Answer :open-loop
Q-7	Correct Answer :closed-loop
Q-8	Correct Answer :backpressure
Q-9	Correct Answer :choke packet
Q-10	Correct Answer :implicit signaling

Congestion Control and Quality of Service multiple choice questions and answers MCQ Set-3

1. In the _____ method, the signal is included in the packets that carry data.

- A. backpressure
- B. choke packet
- C. implicit signaling
- D. explicit signaling

2. In the _____ algorithm of TCP, the size of the congestion window increases exponentially until it reaches a threshold

- A. slow-start
- B. congestion avoidance
- C. congestion detection
- D. none of the above

3. In the _____ algorithm of TCP, the size of the congestion window increases additively until congestion is detected

- A. slow-start
- B. congestion avoidance
- C. congestion detection
- D. none of the above

4. In the _____ algorithm of TCP, the size of the threshold is dropped to one-half, a multiplicative decrease

- A. slow-start
- B. congestion avoidance
- C. congestion detection
- D. none of the above

5. In Frame Relay, the _____ bit warns the sender of congestion in the network

- A. BECN
- B. FECN
- C. either (a) or (b)
- D. neither (a) nor (b)

6. In Frame Relay, the _____ bit is used to warn the receiver of congestion in the network

- A. BECN
- B. FECN
- C. either (a) or (b)
- D. neither (a) nor (b)

7. Traditionally, _____ types of characteristics are attributed to a flow

- A. two
- B. three
- C. four
- D. five

8. _____ is a characteristic that a flow needs. Lack of it means losing a packet or acknowledgment, which entails retransmission.

- A. Reliability
- B. Delay
- C. Jitter
- D. Bandwidth

9. _____ is a flow characteristic that applications can tolerate in different degrees.

- A. Reliability
- B. Delay
- C. Jitter
- D. Bandwidth

10. _____ is the variation in delay for packets belonging to the same flow.

- A. Reliability
- B. Delay
- C. Jitter
- D. Bandwidth

Answer key for MCQ SET- 3	
Q-1	Correct Answer :explicit signaling
Q-2	Correct Answer :slow-start
Q-3	Correct Answer :congestion avoidance
Q-4	Correct Answer :congestion detection
Q-5	Correct Answer :BECN
Q-6	Correct Answer :FECN
Q-7	Correct Answer :four
Q-8	Correct Answer :Reliability
Q-9	Correct Answer :Delay
Q-10	Correct Answer :Jitter

Congestion Control and Quality of Service multiple choice questions and answers MCQ Set-4

1. In _____, queuing packets wait in a buffer (queue) until the node (router or switch) is ready to process them.

- A. FIFO
- B. priority
- C. weighted fair
- D. none of the above

2. In _____ queuing, packets are first assigned to a priority class. Each class has its own queue.

- A. FIFO
- B. priority

- C. weighted fair
- D. none of the above

3. In _____ queuing, the packets are assigned to different classes and admitted to different queues. The queues, however, are weighted based on the priority of the queues; higher priority means a higher weight. The system processes packets in each queue in a round-robin fashion with the number of packets selected from each queue based on the corresponding weight

- A. FIFO
- B. priority
- C. weighted fair
- D. none of the above

4. In the _____ bucket algorithm, bursty chunks are stored in the bucket and sent out at an average rate.

- A. leaky
- B. token
- C. either (a) or (b)
- D. neither (a) nor (b)

5. The _____ bucket algorithm allows idle hosts to accumulate credit for the future in the form of tokens

- A. leaky
- B. token
- C. either (a) or (b)
- D. neither (a) nor (b)

6. In _____, when a source makes a reservation, it needs to define a flow specification

- A. Integrated Services
- B. Differentiated Services
- C. Connectionless
- D. Connection-Oriented

7. ____ is a class-based QoS model designed for IP

- A. Integrated Services
- B. Differentiated Services
- C. Connectionless
- D. Connection-Oriented

8. In Frame Relay, the user can never exceed the _____

- A. access rate
- B. committed burst size
- C. committed information rate
- D. excess burst size

9. In Frame Relay, a _____ is the maximum number of bits in a predefined time that the network is committed to transfer without discarding any frame or setting the DE bit.

- A. access rate
- B. committed burst size
- C. committed information rate
- D. excess burst size

10. In Frame Relay, the _____ defines an average rate in bits per second

- A. access rate
- B. committed burst size
- C. committed information rate

D. excess burst size

Answer key for MCQ SET- 4	
Q-1	Correct Answer :FIFO
Q-2	Correct Answer :priority
Q-3	Correct Answer :weighted fair
Q-4	Correct Answer :leaky
Q-5	Correct Answer :token
Q-6	Correct Answer :Integrated Services
Q-7	Correct Answer :Differentiated Services
Q-8	Correct Answer :access rate
Q-9	Correct Answer :committed burst size
Q-10	Correct Answer :committed information rate