Started on	Wednesday, 14 August 2024, 9:01 AM
State	Finished
Completed on	Wednesday, 14 August 2024, 9:06 AM
Time taken	4 mins 11 secs
Grade	**5.00** out of 10.00 (**50**%)

Question 1

Correct

Mark 2.00 out of 2.00

Given *m* number of nodes, each transmitting in a slot with probability *p*, then probability that a given node *k* has success in a slot is?

Select one or more:

- [ ] a. $mp(1-p)^{m-1}$
- [ ] b. mp
- [x] c. $p(1-p)^{m-1}$ ✓
- [ ] d. $p(1-m)^{p-1}$

Your answer is correct.

The correct answer is: $p(1-p)^{m-1}$

Question 2

Incorrect

Mark 0.00 out of 3.00

Let the message that we want to send is 11001 and C(x) is 1011. Calculate CRC bits.

Answer: 1

The correct answer is: 111

Question 3

Correct

Mark 1.00 out of 1.00

A maximum of two unacknowledged frames can be in transit simultaneously in stop and wait ARQ protocol

Select one:

- True
- False

The correct answer is 'False'.

Question 4

Correct

Mark 2.00 out of 2.00

Select all cases that can lead to unnecessary duplicate frames (i.e., when original frame is correctly received) in stop-and-wait ARQ protocol?

Select one or more:

- [ ] a. Original frame has bit errors
- [ ] b. Timeout is 2xRTT
- [x] c. Timeout is 0.5xRTT ✓
- [x] d. Acknowledgement is lost ✓

Your answer is correct.

The correct answers are: Timeout is 0.5xRTT, Acknowledgement is lost

Question 5

Incorrect

Mark 0.00 out of 2.00

Which of the following statements are correct about slotted ALOHA:

S1: The efficiency increases as the number of nodes with data to transmit increase

S2: A single active node can transmit at channel bandwidth

Select one or more:

- [x] a. S1 is correct but S2 is incorrect ✗
- [ ] b. Neither are correct
- [x] c. Both are correct ✗
- [ ] d. S2 is correct but S1 is incorrect

Your answer is incorrect.

The correct answer is: S2 is correct but S1 is incorrect

◀ Quiz2

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Quiz4 ▶