COMS3200 Assignment 1 Part A Solutions

Scenario 1 solutions

Question 1: What is the value of t1? (3 marks)

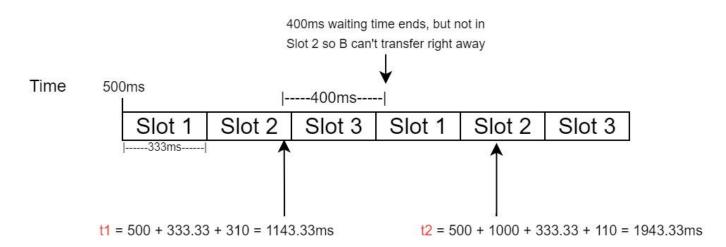
1143.33ms

Question 2: What is the value of t2? (3 marks)

1943.33ms

Time-division multiplexing (TDM)

- 3 Slots, A and B are allocated Slot 2
- Each slot gets 1/3=333.33ms to transfer
- Transfer speed is 9Mbps



A->B, bits transferred = 2,790,000 bits which only takes 2,790,000 / 9,000,000 = 310ms Since 310 < 333, A is able to send the entire file in the first Slot 2 B->A, bits transferred = 990,000 bits which only takes 990,000 / 9,000,000 = 110ms Since 110 < 333, B is able to send the entire file in the second Slot 2

Scenario 2 solutions

Scenario 2 solutions are available in the spreadsheet

Scenario 3 solutions

Question 12: Which on these events can combined together to form an recursive DNS query? (2 marks)

Events 1 and 8

Question 13: Which on these events can combined together to form an iterative DNS query? (2 marks)

Events 2, 3, 4, 5, 6, and 7

Question 14: In event 3, what is DNS record type in the message that D2 sends to D1? (1 mark)

NS

Question 15: In event 5, what is DNS record type in the message that D3 sends to D1? (1 mark)

NS

Question 16: In event 8, what is DNS record type in the message that D1 sends to C? (1 mark)

A or AAAA