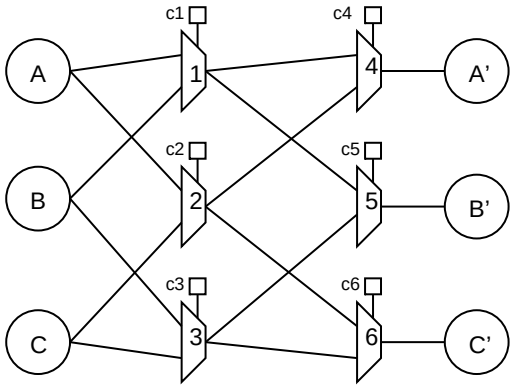
Consider the following Routing Graph:



1. For each of the following connection, list all possible Paths:

Connection	Src	Stg 1	Stg 2	Dst
$A \rightarrow A'$	A			A'
	A			A'
	A			A'
$B \rightarrow B'$	B			B'
	B			B'
	B			B'
$C \rightarrow C'$	C			C'
	C			C'
	C			C'

2. Identify one path for each connection such that the three connections can be made simultaneously.

Connection	Src	Stg 1	Stg 2	Dst
$A \rightarrow A'$	A			A'
$B \rightarrow B'$	B			B'
$C \rightarrow C'$	C			C'

3. Assuming the mux selects the top data input when its control input is a 0 and the bottom input when its control input is a 1, give the configuration bits necessary to realize the connection pattern above.

c1	c2	c3	c4	c5	c6