COMP9332 Network Routing and Switching
Self-assessed Tutorial for BGP

Q1. When using compression, how many bytes are required to code the mask-address pair if the network address has a prefix length of

(a) 10 bits
(b) 16 bits
(c) 17 bits
(d) 24 bits

Q2. Examine the lecture slide 45 (confederation). How many IBGP and EBGP connections are there? How many BGP connections would have been there if neither *confederation*, nor *route reflector* was chosen?

Q3. ISP A and ISP B have separate autonomous systems assuming the numbers 100 and 200, respectively. ISP A advertises the route [N1, (100), Community2] to ISP B. What would be a possible route advertisement if ISP B wants to advertise the route to another neighbour?

Q4 What is BGP Synchronization problem? Name two methods that address this problem without requiring all routers to run BGP. Compare the advantages and disadvantages of these two methods.

Q5 Consider the network in Slide 56 of BGP lecture notes. Show how AS1 can enforce that all traffic from ISP1 and ISP2 arrive via Link 1 and traffic from ISP 3 via Link2.