

Quiz ch09 ch10

班級

學號

姓名

1. You have temporarily moved to a new area and you would like to use your cell phone. What alternatives do you have if:
 - (a) There is no service provider in the area?
 - (b) There is no agreement between your wireless phone service provider and the service provider in the new area?
 - (c) The area is covered only by a satellite phone service?

<sol>

- (a) (20%) It is impossible to use a cell phone where no service provider (including satellite phone service) exists.
 - (b) (40%) You can register your cell phone to the new service provider (like prepaid SIM card) in the new area, if that employs the same technology (like LTE) and the same frequency band (like 2100MHz) frequency band and /or code.(數據漫遊 or 換 ISP 20%)
 - (c) (40%) No alternatives. or Buy a satellite phone and subscribe to a satellite phone service provider. (二擇一)
2. What is the use of “attachment points” from one network to another network? Explain their significance in wireless network routing?

<sol>

They are the gateway routers (20%) which route the packets into/out of one network to another network. (40%) Gateway routers simply support routing within the backbone. (40%)

3. What is DHCP? How does DHCP support dynamic address allocation?

<sol>

by dynamically allocate IP address to host that need access Internet once in a while. propose to reduce the problem of the limited IPv4 address space

4. IPv6 supports resource allocation. Explain how this is achieved.

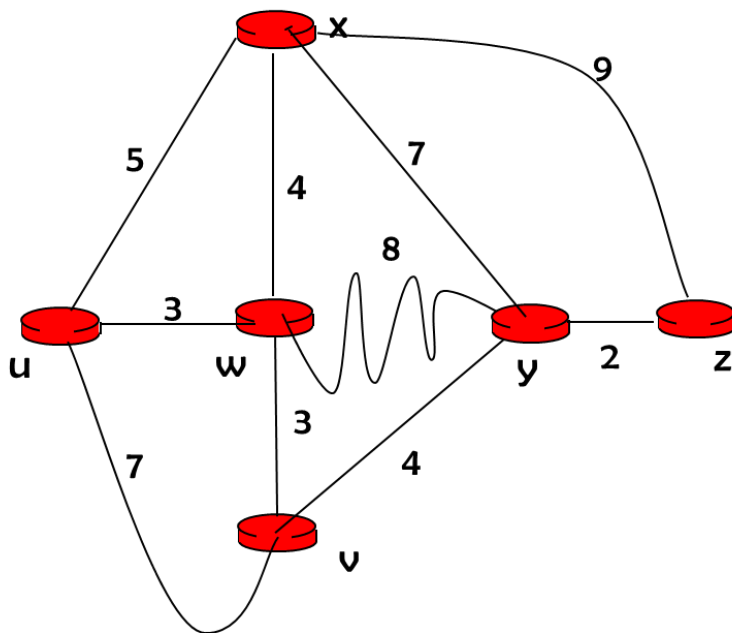
<sol>

IPv6 can support resource allocation by the use of the flow label field in the IP header. (50%)

The flow label can be used to support transmission of real time audio and video, which require resources such as high bandwidth, large buffers, long processing time, etc. (50%)

5. Perform Dijkstra’s (OSPF) algorithm on the following example to find paths from

u to the other nodes.



<sol>

		D(v)	D(w)	D(x)	D(y)	D(z)
Step	N'	p(v)	p(w)	p(x)	p(y)	p(z)
0	u	7,u	3,u	5,u	∞	∞
1	uw	6,w		5,u	11,w	∞
2	uwvx	6,w			11,w	14,X
3	uwxyv				10,v	14,X
4	uwxyv					12,y
5	uwxyvz					