Assignment 2 Solution

Question 1
(a)

Prefix match	Link interface
0000	0
00110000 01000	1
01000011 01	2
otherwise	3

(0.8 mark)

(b)

Link interface 3
Link interface 1

(0.2 mark)

Question 2
(a)   7
(0.5 mark)

(b)   420 bytes
(0.5 mark)

Question 3

(a)

Subnet A: 214.9.25.0/26

Subnet B: 214.9.25.64/28

Subnet C: 214.9.25.160/27

Subnet D: 214.9.25.192/29

(b)

Router 1

Longest prefix match	Outgoing interface
11010110 00001001 00011001 00	Subnet A
11010110 00001001 00011001 0100	Subnet B

Router 2

Longest prefix match	Outgoing interface
11010110 00001001 00011001 101	Subnet C
11010110 00001001 00011001 11000	Subnet D