**P11**

223.1.17.22/25

223.1.17.68/68

223.1.17.1/15

**P13**

224.0.0.0 to 224.63.255.255 0

224.64.0.0 to 224.64.255.255 1

224.65.0.0 to 225.127.255.255 2

Otherwise 3

Forwarding table

| | |
|---|---|
| 224.0 | 0 |
| 224.64 | 1 |
| 224.65 | 2 |
| other | 3 |

**P18**

A )192.168.1 - 192.168.4

B

| WAN Side | LAN Side |
|---|---|
| 24.34.112.235, 4000 | 192.168.1,3345 |
| 24.34.112.235,4001 | 192.168.1,3346 |
| 24.34.112.235,4002 | 192.168.2,3345 |
| 24.34.112.235,4003 | 192.168.2,3346 |
| 24.34.112.235,4004 | 192.168.3,3345 |
| 24.34.112.235,4005 | 192.168.3,3346 |

**P3**

Didn't know which one to pick on run 2 so I just picked the first alphabetical of the equal numbers which was u and used the same logic to continue

L(q) is path cost, C(q) is previous node in the path cost

| Path | L(t),c(t) | L(u),c(u) | L(v),c(v) | L(w), c(w) | L(y),c(y) | L( z),c(z) |
|---|---|---|---|---|---|---|
| x | Inf | Inf | 3,x | 6,x | 6,x | 8,x |
| xv | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| xvu | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| xvuw | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| xvuwy | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| xvuwyt | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |
| xvuwytz | 7,v | 6,v | 3,x | 6,x | 6,x | 8,x |

**P5**

| Node | U | V | X | Y | Z |
|---|---|---|---|---|---|
| Distance from Z | 6 | 5 | 2 | 5 | 0 |

**P11**

A

Router Z tells through x is inf and through y is 5

Router w tells through y is inf and through z is 5

Router y tells through both w and z the length is 5

B

Yes there would be still be a problem even with poisoned reverse.

C

Remove the link

**P14**

A eBPG

B iBPG

C eBPG

D iBGP

**P5**

1010101010 0000/10011 = 10912/19 = 574 with a remainder of 6 so R = 0110

Errors would be would be detected if the R is not the correct R that is expected