2. (a). No, you can only transmit one packet at a time over a shared bus.

(b) No, only one memory r/w can be done at a time over the shared system bus.

(c) No, in this case the two packets would have to be sent over the same output bus at the same time, which is not possible.

3. (a) for memory: $(n-1)D$

(b) for bus: $(n-1)D$

(c) for crossbar switching fabrics: 0.

8. 223.1.17.0/26
223.1.17.128/25
223.1.17.192/28

11. Any IP address in range
128.119.40.128 to 128.119.40.191
Four equal size subnets:
128.119.40.64/28,
128.119.40.80/28,
128.119.40.96/28,
128.119.40.112/28.

16. (a) Home address:
192.168.1.1, 192.168.1.2,
192.168.1.3 with the router

interface being 192.168.1.4.

(b) WAN Side	LAN Side
24.34.112.235, 4000	192.168.1.1, 3345
24.34.112.235, 4001	192.168.1.1, 3346
24.34.112.235, 4002	192.168.1.2, 3345
24.34.112.235, 4003	192.168.1.2, 3446
24.34.112.235, 4004	192.168.1.3, 3545
24.34.112.235, 4005	192.168.1.3, 3546