4

In VC network: incoming interface, incoming VC number, outgoing interface, outgoing VC number.

In datagram network: destination address, outgoing interface.

5

- a. None can be assigned.
- b. there are $2^4=16$ combinations.

6

connection-oriented service keeps the connection state in the communicating nodes, while *connection service* keeps connection state in the routers along the path.

8

- a) (n-1)D
- b) (n-1)D
- c) 0

10

11100000 00:0

11100000 01000000 : 1

1110000:2

11100001 01:3

otherwise: 3