

1. Which of the following does not belong to a broadcast channel
  - A. LANs
  - B. Ethernet
  - C. point-to-point link
  - D. wireless LANs
  
2. Medium access protocols like multiple access protocols are always needed to coordinate frame transmission on network links.
  - A. True
  - B. False
  
3. Which of the following applies (apply) to error detection / error correction at link layer:
  - A. duplicate the functionalities at other layers
  - B. serve a useful role
  - C. not implemented in certain links
  - D. all of the above
  
4. Where is the link layer implemented?
  - A. hardware
  - B. router
  - C. host
  - D. all of the above
  
5. With two-dimensional parity check, suppose we have a data D of 35 bits arranged in a  $5 \times 7$  matrix, how many extra parity bits will be added?
  - A. 5
  - B. 13
  - C. 35
  - D. 12