EL 5373 Pop Quiz Eight

Name: _____   Student ID: _____

I. Select ALL correct answer(s) in each of the following multiple choice questions.

1. Which of the following IP address class is Multicast
   a) Class A
   b) Class D
   c) Class C
   d) Class B

2. An Ethernet station de-multiplexes payload data from the following frames:
   a) Frames addressed to the station's own (Ethernet hardware) address.
   b) Frames that perform link layer functions with one or more specified Ethernet multicast addresses.
   c) All frames with the Ethernet Broadcast address (all 1's).
   d) All frames transferred through the shared medium that the station attaches to.

3. A gateway has a pool of 4 public IP addresses to support 10 hosts. In order to let the 10 hosts simultaneously access Internet, the gateway must implement
   a) either NAT or PAT.
   b) both NAT and PAT.
   c) NAT only.
   d) neither NAT nor PAT.

4. The least significant 23 bits in a 48-bit Ethernet address unambiguously identify _____.
   b) an IP multicast router
   c) a host
   d) an IP multicast group
   e) none of the above

5. Consider an HTTP client that wants to retrieve a Web document at a given URL. The IP address of the HTTP server is initially unknown. What application layer and transport layer protocols are needed in this scenario?
   a) DNS and HTTP
   b) TCP for DNS; UDP for HTTP
   c) UDP for DNS; TCP for HTTP
   d) None of the responses above is correct.

6. Consider sending a 1300 byte datagram into a link that has an MTU of 500 bytes.
   e) Three fragments are created with offsets 0, 500 1000
   f) Three fragments are created with offsets 0, 480 and 960.
   g) Three fragments are created, with offsets 0, 460 and 920.
   a) Three fragments are created, with offsets 0, 60 and 120.

7. If the host ID field of an IP address contains all 1's, what does that mean?
   a) It's actually not a valid address
   b) It's assigned to a special host in the subnet
   c) It's used for broadcasting in the subnet
   d) It's for signaling