

**UNIVERSITY OF CALIFORNIA**  
**College of Engineering**  
**Department of Electrical Engineering**  
**and Computer Sciences**

**EECS122, Fall 1992**  
**First Midterm**  
**Professor F. Wu**

Problems 1-7 (1) points each; Problem 8 (3) points.

**Problem #1**

When is circuit-switching preferred to packet-switching?

- a. Always
- b. When the traffic is bursty
- c. When delays have to be small

**Problem #2**

What do virtual-circuits implement?

- a. Datagrams
- b. Connection-oriented communication services
- c. Circuit-switched communications

**Problem #3**

Why is SRP more efficient than ABP?

- a. It retransmits only incorrect packets
- b. It is used with faster links
- c. It does not wait as much

**Problem #4**

In the OSI model the transport layer protocol of one node communicates with that of another node through:

- a. Direct electrical or optical signals
- b. Virtual communication by way of network layer services
- c. Services of the application layer

**Problem #5**

Suppose a random variable  $X$  has an exponential distribution  $P \{ X > t \} = e^{-(bt)}$ ,  $t \geq 0$ . The conditional probability  $P \{ X > a + t \mid X > a \}$  is

- a. Less than  $P \{ X > t \}$
- b. Equal to  $P \{ X > t \}$

