

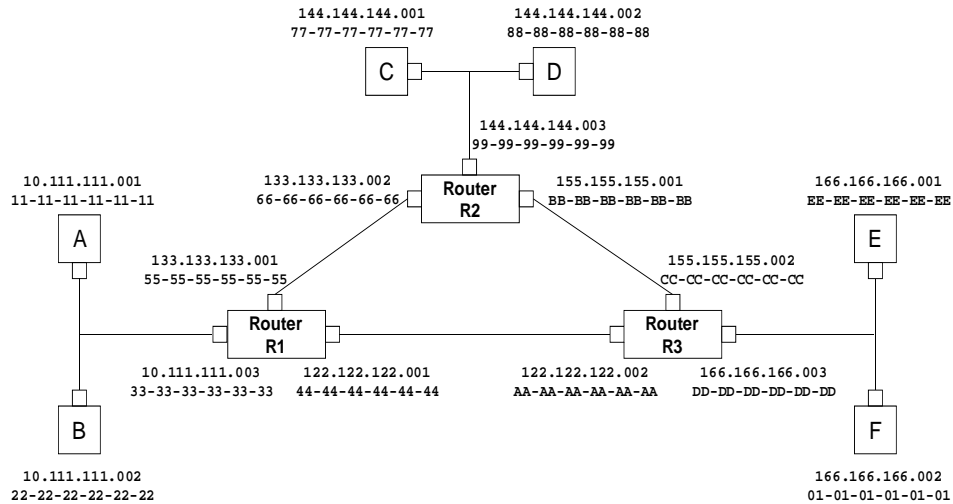
King Fahd University of Petroleum and Minerals
 College of Computer Sciences and Engineering
 Department of Computer Engineering

COE 353 – Fundamentals of Computer Communications (T111)

Homework # 03 (due date: Sunday 11/12/2011 during class period)

*** Show all your work. No credit will be given if work is not shown! ***

Problem # 1 (10 points): Consider the following network where host *A* wants to send a packet to host *E*. The packet sent by host *A* will pass through R1, then R2, then R3 before reaching host *E*. Assume that all ARP tables are complete except for router R1 (i.e. router R1 ARP table is empty). Complete the following table pertaining to the packet sent from *A* to *E*. Note that the possible frame types are ARP Query, ARP Response, and data. Note also that the source and destination IP addresses refer to the IP addresses contained in the data field of each frame. (*Hint: There are a total of 6 frames that will be generated*)



<i>Frame</i>	<i>Frame type</i>	<i>Source MAC</i>	<i>Destination MAC</i>	<i>Source IP</i>	<i>Destination IP</i>
①					
②					
③					
④					
⑤					
⑥					