1. Why is QoS such an important issue? Identify some formal metrics used to measure QoS.

2. What is admission control?

3. Why does RSVP use receiver oriented approach for resource reservation?

4. Refer to the figure given below. A router has two incoming interfaces, labelled A and B, and two outgoing interfaces, labelled C and D. The many-to-many multicast session has three senders – S1, S2, and S3 – and three receivers – R1, R2, and R3. Consider that all of the receivers use the wildcard filter system. The receivers R1, R2, and R3 want to reserve 4b, 3b, and 2b, respectively, where b is a give bit rate. Determine the upstream (interfaces A and B) and downstream reservations (C and D) made by the router?

5. What do you understand by the term “behavioural aggregate” in relation to a DiffServ Network?

6. Explain the functions of the following modules in a DiffServ router:
   a. Classifier
   b. Marker
   c. Meter
   d. Shaper.

7. Explain the concept of “Per Hop Behavior” (PHB) in DiffServ. Cite some examples.

8. There are certain open problems that need to be addressed before the Differentiated framework can see full scale commercial deployment. Identify these problems.