



**Daffodil International University**  
**Department of Computer Science and Engineering**

**Faculty of Science & Information Technology**

**Final Exam Examination, Summer 2021 @ DIU Blended Learning Center**

**Course Code: CSE313 (Day), Course Title: Computer Networks**

**Level: 3 Term: 1 Section: All**

**Instructor: All Modality: Open Book Exam**

**Date: Tuesday 24<sup>th</sup> August, 2021 Time: 01:30pm-05:00pm**

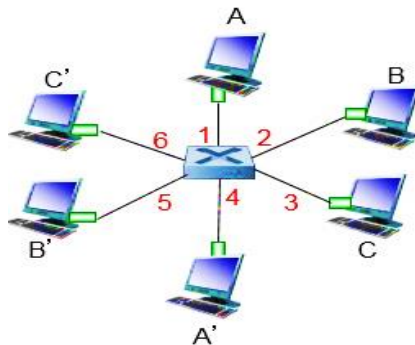
**Three and half hours (3:30), Marks: 40**

**Answer all of the following questions. Figures in the right-hand margin indicate full marks.**

**1. Question-1**

**[CO2]**

- a) Suppose your friend is working on an IT farm where he is supervising a project for DIU with four team members. He needs to communicate with other members to know the progress of the project, sharing information regularly. He also met his clients for sharing confidential data. Sometimes, he communicates with users to know the general needs of the project. But, He wants to use different transport layer protocols to communicate with clients, users, and his team members. Now, your friend needs your advice as you are a Network Administrator. In the above scenario which protocol would he use for clients, users, and teammates? And Why? Explain with proper justification. **5**
- b) Six Hosts are connected with a switch as the following figure. How does switch know A' reachable via interface 4, B' reachable via interface 5? How are entries created and maintained in the switch table? **5**



- c) Suppose Host S wants to send data to Host R. S and R are connected to the same LAN connection. But S only knows the IP address of R. Briefly explain the steps with a diagram of how S will know the MAC address of R? **5**

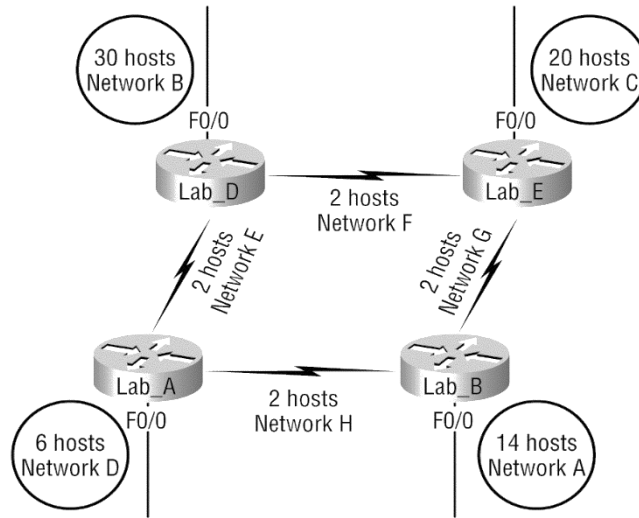
**2. Question-2**

**[CO3]**

- a) Saleha is addicted to Facebook, a social networking site. Most of the time she browses different social networking sites. Recently she changes her residence from Uttara to Dhanmondi. After shifting to Dhanmondi she cannot browse the internet but her machine is properly configured with local IP given by ISP. Find the problems and give possible solutions with an appropriate diagram (if needed). **5**

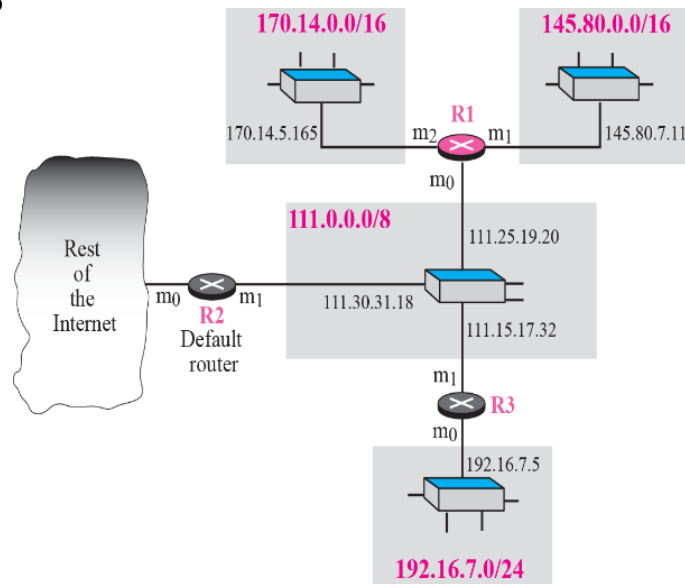
b) Solve the following problems using an IP class that is best suited.

5



c) Show the forwarding process if a packet arrives at R1 in the following figure with the destination address 201.4.22.35

5



**3. Question-3**

[CO4]

- a) Abid and Sumona want to send notes to Rafiq regarding their final examination. But, some problem occurs in a wireless sending and receiving process with regards to the signal. Can you explain which kinds of problems they faced? And also explain how to solve their problem? 5
- b) I. We can find several important differences between a wired link and a wireless link. So, what are the problems found in wireless links which are not observed in wired link? 5
- II. What is Ad Hoc mode in a wireless network? How Ad Hoc mode is different from infrastructure mode in a wireless network?