Examination 2: Modification to SMTP Server (30 marks)

Date: 5/3/2018   Time: 3 Hr

Modify your SMTP submissions to include the following features:

1: Implement multiple Sender Side Servers (SS) (let us assume two such servers, yahoo.com and gmail.com).   **[4 marks]**

2: Implement multiple Receiver Side Servers (RS) (let us assume two such servers, yahoo.com and gmail.com).   **[4 marks]**

3: A client (Sender) can connect to any registered SS and send mail to any valid receivers.   **[2 marks]**

4: SS has to verify recipient account's validity and only if valid then send message to corresponding RS. Otherwise report error to the Sender   **[2 marks]**

5: A client (Receiver) can read messages from any registered RS.   **[2 marks]**

6: If any RS is Down (not running at present), keep the message (s) in SS and send it to the RS when it is Up (running at present), if the recipient is authentic.   **[6 marks]**

7: Assume there is a Central Server (CS) which stores the details of all RS and when a new RS is available, it is first registered to CS and SS can check with CS for any new RS. If a new RS is added to CS, then a recipient can register with the new RS and an SS can send mail to that recipient through the newly available RS as well. To make it simple, let us assume that 2 more RS can be added to the existing two servers and the details regarding the first two servers (yahoo.com and gmail.com) are already available in CS. Let the names of two new RS be: *nitc.ac.in* and *hotmail.com*.   **[10 marks]**