A Plastic manufacturing company manufactures plastic sleeves of various dimensions as per its clients’ need. The company mail server accepts emails from off-line and on-line clients periodically during runtime.  The mail is to be delivered to other mail servers on the network, many of which fail to be delivered because the target server cannot be located. Each mail is either delivered or fails to be delivered for several reasons.  We would like to assure that 99.9999% of emails (which are correctly addressed) are correctly delivered. The servers have to be located in the internet through an efficient system so that resources are not wasted in locating other servers resulting in lost emails.

1. Indicate whether the Availability quality attribute is being addressed here? Explain your answer with the Quality attribute and Stimulus being addressed here with explanation.      **[1+1]**

2. Sketch a relevant Quality Attribute Scenario indicating the six parts of quality attribute scenario. Explain the Response & Response Measure portion of scenario with their possible values.   **[2+1]**

3. Suggest a Tactic to resolve the issue and describe the working of the tactic.    **[1+2]**

a. No. (1 mark for correct answer) Quality attribute: Interoperability Stimulus: A request to exchange information among systems (0.5 each for correct answer) b. Sketch the concrete interoperability scenario using 6 quality attributes. (2 marks for correct answer; 1 mark for partly correct answer) Response: Email is either accepted or rejected. The information is understood by the receiving party. Alternatively, the request is rejected and appropriate entities are notified. In either case, the request may be logged. Response Measure: 99.9999% of the mails which are properly addressed are delivered. The percentage of information exchanges correctly processed or the percentage of information exchanges correctly rejected. (0.5 each for correct answer) c. Tactics: Locate: Discover Service (1 mark for correct answer) Working: The Mail servers register with a discover service. It is accessible by any server that wishes to deliver email to a third party. The tactics discover service gives the location of the server so that it can be easily reached. (2 marks for correct answer; 1 mark for partly correct answer) PART MARKS ALREADY AWARDED.