

**Probability & Statistics**  
**Quiz #1**  
**Total Marks: 10 marks (CLO-1)**

**2.96** Police plan to enforce speed limits by using radar traps at four different locations within the city limits. The radar traps at each of the locations  $L_1$ ,  $L_2$ ,  $L_3$ , and  $L_4$  will be operated 40%, 30%, 20%, and 30% of the time. If a person who is speeding on her way to work has probabilities of 0.2, 0.1, 0.5, and 0.2, respectively, of passing through these locations, what is the probability that she will receive a speeding ticket?