Introduction of Communications

Solution of Homework 3

20 pts

20. See Figure 2.1.

Figure 2.1 Solution to Exercise 20

20 pts

21. See Figure 2.2.

Figure 2.2 Solution to Exercise 21

20 pts

22.
If the corrupted destination address does not match any station address in the network, the packet is lost. If the corrupted destination address matches one of the stations, the frame is delivered to the wrong station. In this case, however, the error detection mechanism, available in most data link protocols, will find the error and discard the frame. In both cases, the source will somehow be informed using one of the data link control mechanisms.

20 pts

26.

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TCP/IP protocol suite has fewer layers than ISO’s OSI</td>
<td>Service, interface, and protocol in the application layer of TCP/IP suite are not defined as clear as ISO’s OSI</td>
</tr>
<tr>
<td>2</td>
<td>The application layer in TCP/IP suite is more flexible</td>
<td>Jobs in the application is more complicated</td>
</tr>
</tbody>
</table>