Microbiology (Bio 206)
Problem Set #6

These problems are intended to be similar to questions you might see on an exam.
An answer key is posted on the course Web site:
english.sxu.edu/~visick/micro.htm (click on Answer Keys)

1. Match the following organisms with their reservoir and vector. One letter and one number per
blank, but you can use the letters and numbers more than once or not at all.

<table>
<thead>
<tr>
<th>Vector</th>
<th>Reservoir</th>
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<tbody>
<tr>
<td>Neisseria meningitidis</td>
<td>a. Mosquito</td>
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<tr>
<td>Encephalitis virus</td>
<td>b. Tick</td>
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<tr>
<td>Clostridium perfringens</td>
<td>c. Louse</td>
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<tr>
<td>Yersinia pestis</td>
<td>d. Flea</td>
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<tr>
<td>Rickettsia prowazekii</td>
<td>e. Tse tse fly</td>
</tr>
<tr>
<td>Trypanosoma brucei</td>
<td>f. None</td>
</tr>
</tbody>
</table>

1. Human only
2. Soil
3. Mice and voles
4. Rats and squirrels
5. Horses and birds
6. Cows and sheep

2. Give three reasons why the plague has such a high potential for epidemic spread.

3. A patient has a severe headache, fever, and an extremely stiff neck.
   a. What disease might you suspect?
   b. How would you distinguish between the three major causes of this disease?

4. Smallpox has been completely eradicated, and polio is expected to be next. For each of the
following diseases, say whether you think the chance of complete eradication is good, fair or
poor, and explain why you made that choice.
   a. Leprosy
   b. Chicken pox
   c. Measles
   d. Rabies

5. Leprosy and tuberculosis are both caused by Mycobacterium species. Compare and contrast these
two diseases.