1) Why do the cochlear nuclei have specific neurons that fire an action potential for every arriving action potential in its 8th nerve input? Answer by describing the function of precise timing at this early stage in the auditory pathway.

2) What is the major kind of problem that animals have after ablations of the auditory neocortical areas? Name or describe two auditory abilities that are not disturbed by such lesions.

3) Name or describe two of the three deficits that make up the Brown-Sequard syndrome. What is the lesion causing this syndrome?