Step 1

a) Yes, in the web browsing application, I/O performance dominates system performance as read/write requests dominate the file system traffic in browsing.

Step 2

b) Yes, in the Sound editing application, I/O performance dominates system performance as sound editing is done mainly using I/O device such as keyboard, mouse, and headphones.

Step 1

a) Characteristics of web browsing in evaluating I/O subsystem have large numbers of small, concurrent transactions will execute.

Step 2

b) Characteristics include concurrent data reads and writes. The system includes a sound editor which displays sound waveforms, and permits the user to mix together several simultaneously displayed waveforms, and to change the pitch and amplitude of one part of each waveform by means of a novel screen display.

Step 1

It does not make much sense to evaluate an I/O system outside the system where it will be used. CPUs are particularly difficult to evaluate outside of the system where they are used. Benchmarks can help with this, but frequently Amdahl's law makes spending resources on improving CPU speed have diminishing returns.