

Q1)

To answer which one runs faster, It depends, however based on my research, because of the resource sharing and scheduling constraints, background processes may execute more slowly than foreground activities. Background processes are affected by CPU scheduling algorithms that decide how much CPU time is distributed across all active programs, which may affect how quickly they execute.

Q2)

Foreground tasks are typically given higher priority than background tasks. Before starting a new process, the user must wait for the current one to finish. foreground processes might display an interactive graphical user interface.

q3)

The runtime difference between a foreground and background process running the same program have to do with allocation and terminal interaction. Foreground processes, receive more CPU resources and may wait for user input, potentially causing delays. where as Background processes are optimized for non-interactive execution and may receive fewer resources, resulting in potentially faster execution. also the background process does not impact terminal usability, therefor tasks can be performed at the same time.