1. a) No. Trap instruction occurs at user level, and it is responsible for moving process from user mode to kernel mode.

   b) Question is omitted. It is not covered in class

   c) No. If the type of access is read for both threads then there will be no concurrency error

   d) No. Limited direct execution means running a process in CPU but with limited permission, and it can be thought as baby proofing CPU, so bad code won't harm the system.

   e) No. Indexed based system uses block pointers in inode, and block pointer can be pointing data blocks in the data region.

   f) No. Extent-based file system requires only extent + length to get to a particular byte in file, and this differs from indexed-based system which uses many indirect pointers in between (which adds disk access).

2. a)
   - Process counter
   - Process state
   - Process ID
   - Process Register

   b) Before going from user to kernel mode, the following must be saved

   - User/Process Register
   - Stack pointer
   - Frame pointer
   - I/O Information
   - Process ID
   - Process State

   So upon executing return-from-trap instruction, the process can resume where it has left.