(a) Single Sign-On systems (SSO) may be classified (after Pashalidis and Mitchell) as either pseudo-SSO or true-SSO, and as either local or proxy-based. These two dimensions partition the space of SSO systems into 4 quadrants.

(i) After describing what an SSO is and the purpose it serves, explain the terms “pseudo-SSO”, “true-SSO”, “local” and “proxy-based”. [4 marks]

(ii) Describe an example SSO system for each quadrant (real or imaginary, but with a concrete use case), briefly sketching how it works. [8 marks]

(iii) What are the security, privacy, usability and deployability problems inherent to each of the four quadrants? [8 marks]