Lecture 7: Identity and Access Management

QUESTION 1

a. Briefly explain the following concepts related to identity management.
   (i) Entity.
   (ii) Identity.
   (iii) Identifier.
   (iv) Digital identity
b. Briefly explain what is meant by the concept "identity management".
c. Explain what is meant by AAA services, and why this name partially is a misnomer

QUESTION 2

a. Specify desirable properties that identifiers should have.
b. What is the "Passing Bus Test" related to the property of being memorable?
c. Explain Zooko's Triangle, and what it says about identifier properties.
d. What is the petname model for identity management.

QUESTION 3

a. Briefly describe the silo identity model for management of user identities.
b. Describe advantages of the silo model.
c. Describe disadvantages of the silo model.

QUESTION 4

a. Briefly describe the federated model for management of user identities.
b. Describe advantages of the federated model.
c. Describe disadvantages of the federated model.
d. Briefly explain what is meant by user-centric identity management.

QUESTION 5

SAML specifies two (2) different protocol profiles for browser SSO (single sign-on)
a. Name of each of these two (2) profiles.
b. Briefly explain the two (2) profiles.
c. Which profile could be considered more secure and why?

QUESTION 6

Several national governments have specified national authentication frameworks. The Norwegian FADS "*Framework for Authentication and Digital Signatures*" can be accessed at http://www.regjeringen.no/upload/FAD/Vedlegg/IKT-politikk/eID_rammeverk_trykk.pdf
The Australian NeAF "*National e-Authentication Framework*" can be accessed at:
http://www.finance.gov.au/e-government/security-and-authentication/docs/NeAF-framework.pdf

a. To what degree are the authentication assurance levels of FADS and NeAF compatible?
b. FADS does not explicitly focus in identity registration, whereas NeAF does. Give a possible explanation for why FADS does not focus on identity registration.
c. How many Authentication Assurance Levels (AAL) does NeAF specify and what are they called?
d. What does "Identity Registration Assurance Level 0" means in the NeAF terminology?
e. NeAF specifies the possibility of registering anonymous identities. Explain why it could be meaningful to have high authentication assurance level in a pseudonym identity?