# Information and software systems architecture:

- 1. Explain the role and work process of a software systems architect

- Explain the core concepts of software and systems architecture
  Explain the core concepts of software and systems architecture
  Explain the central concepts of the software architecture definition process
  Explain the central concepts of scenarios: when and how should they be used
  Explain the importance of stakeholders and their relation to architecture
  Explain the central concepts of architectural models: why are they important, who uses them and what is the purpose
- 7. Explain the concept of viewpoints and their role in systems architecture
- 8. Explain the concept of perspectives: how do they complement viewpoints?

# Systems development and design

- 9. Explain the idea of Soft Systems Methodology: how is it applicable as a software developer
- 10. Explain the concept of "paradigms" to work under as a system developer/designer/architect: why does it matter to be aware of this?
- 11. Explain how the pilot implementation approach relates to other development approaches, their purpose, outcomes and learning potential (e.g. technochange prototyping, plan-driven, technical prototyping, evolutionary development, phased implementation).

#### **Evaluation of IT:**

- 12. Explain the central concepts of evaluation of systems architecture: what is important, when is it done and why?
- 13. Explain the different kinds of approaches for evaluating IT, what the purpose of them are and when they are appropriate to use
- 14. Explain how to evaluate IT security and how you would plan for an IT security evaluation strategy

## **Implementation and Change management:**

- 15. Explain the differences between technical and organisational implementation and the concept of technochange
- 16. Explain the risks of implementing new architectures into organisations and how to mitigate them
- 17. Explain organizational change management strategies and how stakeholders make sense of technology in organizations.

## **Information Technology Security:**

- 18. Explain security and privacy issues and how they relate to security goals
- 19. Explain technologies for security and relate these to software systems architecture
- 20. Explain approaches for conducting security risk assessments and the importance of this