11. Cloud Computing

   a) Name the essential characteristics of Cloud Computing.
   b) Compare the approaches of grid and cloud computing in terms of goals, business model, quality-of-service support, administration, resource provision and consumption, and security requirements.

11.2. Cloud Service and Deployment Models
   a) Explain briefly the different cloud service models and give an example for each model.
   b) What is the main difference between Public and Private Cloud services?

11.3. Virtualization
   a) Explain the difference between Virtualization and Abstraction.
   b) What is the difference between a Virtual Machine and a Container?

11.4. Load Distribution
   a) Explain the concepts of Scale Up and Scale Out.
   b) What is the difference between packet-based and flow-based load balancing? In what cases is stickiness required?
   c) How is DNS-based Load Balancing working? What are disadvantages of this approach?
   d) Discuss metrics that could be used to configure a load balancer or an autoscaling policy.