**Common mistakes:**

**Question 1 a):** significant number of students did list key objectives regarding the design and operation of electrical energy systems and did not provide sufficiently comprehensive explanation.

**Question 1 c)**: Some students made numerical errors as this question involved derivations of expressions and complex mathematical operations that led to numerical errors. Other students did not perform correct calculations to for the evaluation of the coincidence factor.

**Question 1e)**: Number of students made numerical mistakes, while some others students did not apply appropriate formulas.

**Q3 c)**: Some of the students did not fully understand the definition of a) transmission demand function and b) transmission supply function, and therefore provide incorrect answers.

**Q3 d)**: Although most students provided correct final results, significant number of them did not provide appropriate explanation regarding the decision making of different entities in determining the optimal transmission capacity.

**Q4 c) and d)**: Some of the students did not know how to calculate power flow and locational prices applying the superposition techniques.

**Question 3):** Students made some numerical mistakes in performing the Gauss-Siedel iterations, while also not having understood the essence of what power mismatch is.

**Successfully completed steps:**

**Question 1b):** Most of the students demonstrated full understanding of the way in which synchronous generators control power flows in transmission networks and balance demand and supply in real time.

**Question 1c):** Many of the students are familiar with the calculation of diversified peak demand and the benefits of diversification.

**Question 1d)**: Most of the students followed the correct procedure in determining the expressions for the instantaneous active power.

**Question 2a)**: Most of the students demonstrated strong understanding of the concept of three-phase active power and correctly calculated three-phase reactive power.

**Question 2b-c)**: The majority of the students answered this question correctly, meaning that they have understood the interrelationship between Joules and kWh. Additionally, they have understood how to populate the unit-availability table and compute the cumulative probability.

**Question 3):** Most students had no difficulty determining the Y-bus matrix corresponding to the provided network as well as explaining the essence of the slack bus.