PS 7006 Industrial Power System Analysis and Design

Important 13 Mark Questions

Unit I

1. What are the various starting methods used for large motor and describe them in detail?
2. Explain the calculation of acceleration time for motor from the motor equation of motion; also specify the net motor torque.
3. Explain the various starting methods for induction motor.
4. Explain the calculation steps adopted for computing acceleration time, also provide the silent features of computer aided analysis.
5. Classify squirrel cage motor based on Torque speed characteristics?

Unit II

1. What are the various approaches available in the capacitor placement/installation in the power system? Describe them.
2. Demonstrate about the frequency scan analysis.
3. Show the concept of back-to-back switching with two 60 MVAR capacitor banks with series reactor in the switching circuit. Assume the necessary parameters and explain.
4. Explain about the Voltage Magnification Analysis.
5. Discuss the power factor correction capacitor project with the help of case study?

Unit III

1. What are the various ‘Harmonics Filters’? Explain them in detail.
2. Explain about the various indexes related with Harmonic Evaluation.
3. Discuss about the any two types of harmonic filters.
4. Describe about the harmonic evaluation, with a suitable case study.
5. What are the various acceptance criteria with the limitations of harmonics?

Unit IV

1. What is meant by flicker analysis? What is its necessity and explain?
2. Explain the various possibilities for minimizing flicker effects.
3. Discuss the methods to minimize the flicker effects.
4. Describe about the flicker analysis and calculations.
5. Represent various flicker terminologies and their usage in stating the flicker criteria.

Unit V

1. Describe the Ground Grid Resistance Calculation with the help of suitable equations.
2. Explain in detail about the determination of maximum ground fault current.
3. Explain the calculation of ground grid resistance.
4. Discuss about the determination of maximum ground fault current.

5. State the methodology for performing ground grid calculation using computer aided analysis.