

PS 7006 Industrial Power System Analysis and Design

Important 2 Mark Questions

Unit I

1. Match the following as per the NEMA classifications in Induction Motors:
 - (a) Design B – (i) Suitable for constant speed applications
 - (b) Design C – (ii) have low efficiency and are used for high inertia Loads.
 - (c) Design D – (iii) most commonly used squirrel cage motor
2. When to follow 'IEEE standard 399', in order to do the motor starting study?
3. Specify the features of 'Design D' category motors.
4. Define inrush current.
5. Give the classification of polyphase induction motor.
6. State the advantage of full voltage starting?
7. What are the data related issues for motor in a power system?
8. State the methods for voltage drop calculation?
9. Write the dynamic equation of the motor starting function?
10. What are the output reports obtained from motor starting?

Unit II

1. Define 'Transient Recovery Voltage'.
2. List the disadvantages of low power factor.
3. Specify the purpose of frequency scan analysis.
4. Define power factor?
5. What are the factors which ensure satisfactory operation of power factor correction capacitors?
6. What is insulation co-ordination?
7. What is MCOV capability?
8. Define TRV?
9. What is back to back switching?
10. How does frequency scan done?

Unit III

1. Specify a few problems in power system because of its converter loads.
2. Specify the importance of 'IEEE standard 519'.
3. List the few sources for harmonics.
4. Describe about the parallel resonance.
5. How does advents of converter affect the power systems?
6. What are single tuned filters?
7. What are high pass filters?
8. Define Total Demand Distortion.
9. Give the formula for resonant frequency of high pass filter.
10. What is optimal factor? Give its equation.

Unit IV

1. List the common sources for flicker.
2. Define 'Phase Flicker'.
3. Define 'Flicker'
4. Give the assumptions made in flicker analysis.
5. Define borderline of irritation?
6. Draw the flicker curve from IEEE standard 519.
7. What is SMES?
8. Draw the svc set up for a fluctuating load.
9. Give the formula for energy stored by super conducting coil in SMES.
10. What are the effects of operating of one furnace operation without compensator?

Unit V

1. Specify the importance of IEEE standard 80.
2. Define touch voltage.
3. Define 'Allowable touch Voltage'.
4. Recall the features of 'IEEE standard 81'
5. What is transferred potential?
6. What are the assumptions made for ground grid analysis?
7. How does temperature affect the resistivity of soil?
8. Give the formula for maximum grid current.
9. What are the various grounded grids available for computer aided analysis?
10. What are the various ways to improve the performance of the grounding grids?