APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY THIRD SEMESTER M. TECH DEGREE EXAMINATION Electrical & Electronics Engineering

04EE7405—Power System Economics

Max. Marks: 60

Duration: 3 Hours

PART A

Answer All Questions

Each question carries 3marks

- 1. Define PoolCo model
- 2. What is meant by TRANSCO?
- 3. Discuss the relationship between long run and short run costs.
- 4. Draw the flow chart used in VaR calculation for short term generation asset valuation.
- 5. Briefly explain ATC.
- 6. Briefly explain equal area criteria.
- 7. What is meant by equivalent hours load factor?
- 8. Discuss the effect of capacitors on T and D losses.

PART B

Each question carries 6 marks

- 9. Explain electricity market models.
- OR
- 10. Discuss the role DISCOs and RETAILCOs.
- 11. Define monopolistic and oligopolistic method.
- OR

- 12. Explain AGC and pricing.
- 13. Explain framework for VaR calculation.
- OR
- 14. Explain generation capacity valuation.
- 15. Discuss the role of FACTS devices in competitive power market.

OR

- 16. Explain distributed generation in restructured markets.
- 17. How steady state voltage stability is achieved with reactive power devices.

OR

- 18. Explain the criteria for stability.
- 19. Discuss the methods for loss reduction.

OR

20. Discuss about the reactive power requirements of transformers.