BTECH DEGREE EXAMINTION MAY 2014

EE 010 804 L01: ADVANCED POWER SYATEMS

Electrical & Electronics Engineering

TIME: Three Hours **Max.100 marks**

PART A (3 marks each)

1. Explain the block diagram of load frequency control
2. Explain unit commitment
3. Explain long range and short range hydro scheduling
4. What is energy broker system?
5. What are the factors affecting security of power system?

PART B (5 marks each)

6. Explain control area concept
7. Explain Spinning reserve
8. Explain short term hydro thermal scheduling problem
9. Explain power pools
10. Explain the calculation of network sensitivity factors

PART C (12 marks each)

11. Explain turbine speed governing system
12. How to find unit commitment solution using priority methods
13. Explain in detail dynamic programming solution to the hydrothermal scheduling problem
14. Explain the other reasons for interchanging power than simply obtaining economic benefits?
15. Explain in detail contingency analysis