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Question Paper Code : X86870

M.E./M.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2021
Second Semester
Power Systems Engineering
PS5204 – RESTRUCTURED POWER SYSTEM
(Regulations 2017)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. State any four benefits of restructuring process.
2. Name the various market models in restructured power system.
3. Define the term : Congestion.
4. What is meant by ATC ?
5. What is the role of LMP calculation ?
6. What is meant by FTR ?
7. List the merits of composite pricing paradigm.
8. What are the drawbacks of contract path method of transmission pricing ?
9. Give any two websites related to Indian Power System Restructuring Environment.
10. What are the three components of ABT ?

PART – B

(5×13=65 Marks)

11. a) What is the necessity of deregulation in electricity market ? Also give the characteristics of regulated electricity industry.

(OR)

- b) Discuss the various restructuring models with clear explanations.

X86870



12. a) Discuss any one method to compute ATC.

(OR)

b) Discuss how inter zonal and intra zonal congestion management problem is formulated.

13. a) Discuss the ACOPF model for LMP calculation.

(OR)

b) i) Write short notes on FTR and merchant transmission investment. **(7)**

ii) Write short notes on FTR auction and allocation methods. **(6)**

14. a) With the help of one example explain the MVV – mile method of transmission pricing.

(OR)

b) What is meant by ancillary services and show how these services are carried out in restructured power system.

15. a) Explain the three parts of ABT and bring out the benefits of ABT.

(OR)

b) Discuss the key objectives of Electricity Act, 2003.

PART – C

(1×15=15 Marks)

16. a) i) Enumerate the importance of congestion management in power sector. **(8)**

ii) Discuss why voltage control is important in restructured power and how it can be implemented. **(7)**

(OR)

b) i) Explain the various players involved in the restructured Indian power sector. **(8)**

ii) Discuss how ABT is implemented in Tamil Nadu power sector. **(7)**
