

M.Tech. Electrical Power System (CBCS Pattern) Sem-III
PEPS322 - Elective-III : Power Systems Deregulation

P. Pages : 1

Time : Three Hours



GUG/W/22/11068

Max. Marks : 70

-
- Notes :
1. All questions carry equal marks.
 2. Answer **five** questions.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Illustrate your answers wherever necessary with the help of neat sketches.
 5. Use of a non-programmable calculator is permissible.
 6. Assume suitable data wherever necessary.
 7. Use of slide rule, Logarithmic Tables, Steam Tables, Mollier's Chart, Drawing Instruments, Thermodynamic tables for moist air, Psychometric Charts and Refrigeration charts is permitted.

- | | | | |
|----|----|--|----|
| 1. | a) | Explain ATC (Available Transfer Capability) Enlist and describe any three methods, generally utilized for its determination. | 7 |
| | b) | Explain what is meant by regulation? What are the characteristics of regulated electric supply undertaking? | 7 |
| 2. | a) | What are various restructuring model in open market? Explain each clearly. | 7 |
| | b) | Discuss the wholesale competition market model. Draw block diagram. Write merits and demerits. | 7 |
| 3. | a) | Explain various ISO (Independent system operator) models. | 7 |
| | b) | Explain disadvantages of postage stamp method. | 7 |
| 4. | a) | Explain the following terms w.r.t. the CEA notified definitions
i) Base Load Operation
ii) Basic Insulation Level (BIL)
iii) Black Start
iv) Boiler Maximum Continuous Rating (MCR). | 7 |
| | b) | Discuss some of the provisions of CEA with respect to NOISE LEVEL in thermal generating stations. | 14 |
| 5. | | Illustrate the Basic principle of marginal Transmission pricing paradigm. | 14 |
| 6. | | What is meant by power system congestion? List various techniques for congestion management and explain any one of them in detail. | 14 |
| 7. | | Write features of Electricity act 2003 in light of power system deregulation. | 14 |
| 8. | | Explain in details the Inter zonal and Intra zonal congestion management. | 14 |
