

Total No. of Questions :12]

SEAT No. :

P821

[Total No. of Pages :2

[4659] - 72**B.E. (Electrical)****RESTRUCTURING & DEREGULATION
(2008 Pattern) (Elective-II) (Semester - I)***Time : 3 Hours]**[Max. Marks : 100**Instructions to the candidates:*

- 1) Answer Q.1 or Q.2 & Q.3 or Q.4 & Q.5 or Q.6 questions from Section I and Q.7 or Q.8 & Q.9 or Q.10 & Q.11 or Q.12 questions from Section II.
- 2) Answers to the two sections should be written in separate books.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right indicate full marks.
- 5) Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
- 6) Assume suitable data, if necessary.

SECTION-I

- Q1)** a) Explain the objectives of “Electricity Act 2003”. Also explain the guidelines under this act. [8]
- b) Explain the structure and working of Indian Energy Exchange (IEX). [8]

OR

- Q2)** a) Explain the functions of following institutions: [8]
- i) PFC
 - ii) Ministry of Power
- b) Why the reformation has taken place in electrical power system. [8]

- Q3)** a) Explain different methods to assess the financial feasibility of any project. [8]
- b) Explain average, marginal and avoided cost. [8]

OR

- Q4)** a) Explain following basic concepts of power sector economics: [12]
- i) Life cycle cost.
 - ii) Net present Value.
 - iii) Variable cost.
 - iv) Profitability Indices.
- b) Explain O and M expenses [4]

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- Q5)** a) Explain role of regulation and evolution of regulatory commissions in India. [10]
 b) What are the regulation externalities. [8]

OR

- Q6)** With respect to the regulatory process in India explain: [18]
 a) Composition of R.C.
 b) Authority.
 c) Decision Making Process.

SECTION-II

- Q7)** a) Explain electricity reforms in Latin America and China. [8]
 b) Write a short note on the following trading models based on industrial structure. [8]
 i) Pool and bilateral trades.
 ii) Multi lateral trades.

OR

- Q8)** Explain in brief following structural models. [16]
 a) Monopoly.
 b) Single Buyer.
 c) Wholesale competition
 d) Retail competition

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- Q9)** Write a short note of following models of trading. [18]
 a) Integrated
 b) Wheeling
 c) Decentralized

OR

- Q10)** a) What are the impact of market reform on regulation and externalities. [8]
 b) Explain in detail Retail competition. [10]

- Q11)** a) Explain how with the implementation of Availability based tariff the grid operation is improved in Indian power sector. [8]
 b) Explain the key features of Indian Grid Code and also explain transmission congestion issues. [8]

OR

- Q12)** a) Explain the necessity of transmission planning with reference to market structure. [8]
 b) Explain the working of Independent System Operator {ISO} and Load Dispatch Center (LDC). [8]

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