Total No. of Questions : 5]

SEAT No. :

P5363

[Total No. of Pages : 1

[5562]-220

M.E.(Electrical Power Systems)

POWER SECTOR ECONOMICS & MANAGEMENT

(2017 Course) (Semester - I)

Time : 3 Hours] *[Max. Marks : 50*

Instructions to the candidates:

1) ***Neat diagrams must be drawn wherever necessary.***
2) ***Figures to the right indicate full marks.***
3) ***Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.***
4) ***Assume suitable data, if necessary.***

Q1) Solve any three from the following. **[18]**

a) Explain the role of Central Electricity Authority and Rural Electrification corporation.

b) Explain Wholesale competition and Retail competition models.

c) Calculate net present value of a project with capital investment of Rs. 5,00,000 and annual saving for subsequent five years are Rs. 75,000, Rs. 1,25,000, Rs. 1,25,000, Rs. 1,25,000 and Rs. 2,00,000. With discounting factor of 10% judge the economic feasibility of the project.

d) Explain rate of return regulation and cost plus regulation.

e) Explain principles of tariff setting.

f) Give salient features of Electricity Act 2003.

Q2) a) What are the ancillary services? Why these are required? **[8]**

b) Compare future market with forward market used in electricity trading. **[8]**

OR

Q3) a) What is market power? How it is exercised? **[8]**

b) Explain following terms. **[8]**

i) Spot markets and managed spot markets

ii) Locational marginal pricing and zonal pricing

Q4) a) What is arbitrage? Explain it with suitable examples. **[8]**

b) Explain transmission pricing model adopted by Indian power sector. **[8]**

OR

Q5) a) Discuss transmission cost allocation methods. **[8]**

b) How game theory methods are useful power system operation? Explain with example. **[8]**

♦ ♦ ♦