SUBJECT CODE NO:- P-8031
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E. (Electrical Power System) Examination May/June 2017
Power System Planning & Eco. Operation
(Revised)

[Time : Three Hours]   **[Max Marks :80]**

Please check whether you have got the right question paper.
N.B   i) Solve any two questions from each section.
ii) Assume the suitable data wherever necessary.

Section A

Q.1 (a)   Explain aims of medium term strategy and short term strategies.   10

(b)   What do you understand by integrated resources planning explain.   10

Q.2 (a)   Draw and explain the organization of power industry in India.   10

(b)   Explain the electricity supply act 1948.   10

Q.3 (a)   Write the simulation programs for system planning.   10

(b)   Write and explain all the forecasting techniques with diagram.   10

Section B

Q.4 (a)   Write in brief about reactive load forecast.   10

(b)   Discuss and derive the area frequency response characteristics of two area systems.   10

Q.5 (a)   What is decentralized control? Explain.   10

(b)   Discuss in brief system interconnection and integrated operations.   10

Q.6 (a)   Discuss Quasi-saturation compensation and dynamic compensation.   10

(b)   In a two bus system if P_{g_A} and P_{g_B} are the respective generations of power at buses A and B and, and if   10

P_{D_A} and P_{D_B} be the power demands, neglecting line loss in the interconnection, find an optimal load

dispatch schedule for the system provided the cost functions are given by,

$F_{C_A}(P_{g_A}) = \gamma_A + \beta_A P_{g_A} + \alpha_A P^2{}_{g_A}$ Rs/hr

$F_{C_B}(P_{g_B}) = \gamma_B + \beta_B P_{g_B} + \alpha_B P^2{}_{g_B}$ Rs/hr

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