SUBJECT CODE NO: E – 8170
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E. (Electrical Power System) Examination Nov/Dec 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
      1) Solve <u>any two</u> questions <u>from each section</u>.
      2) All question carry equal marks.
      3) Assume suitable data, if necessary.

Section A

Q.1	a) How strategic planning is implemented? What are different types of strategies? Explain.	10
	b) How classification of loads is done? Draw characteristics of all loads.	10
Q.2	a) What are the reforms to power structure & restructuring of system?	10
	b) How electricity forecasting is done? Explain in detail.	10
Q.3	Write short note on	20
	a) Different software packages used in power system planning.	
	b) Deregulation IPPS.	
	c) Electricity regulation act.	
	d) Spatial load forecasting.	

Section B

Q.4	a) Explain system interconnection & integrated operation of power system.	10
	b) What are the different automatic voltage regulators? Explain in details.	10

Q.5   a) The incremental fuel costs for the two plants are given by   10

$$dC_1/dP_1 = 0.2P_1 + 34 \; ; \quad dC_2/dP_2 = 0.25P_2 + 45 \quad \text{where (as in } Rs/hr \text{ P is in MW.)}$$

If minimum & maximum loads on each are 20MW & 100MW. Determine economic load schedule of plants for the loads 80MW & 180MW. Neglect line losses.

    b) Explain series reactive power compensation.   10

Q.6	a) What is the need of economic dispatch? Explain its control.	10
	b) Explain two area load frequency control.	10

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