ECONOMIC LOAD DISPATCH

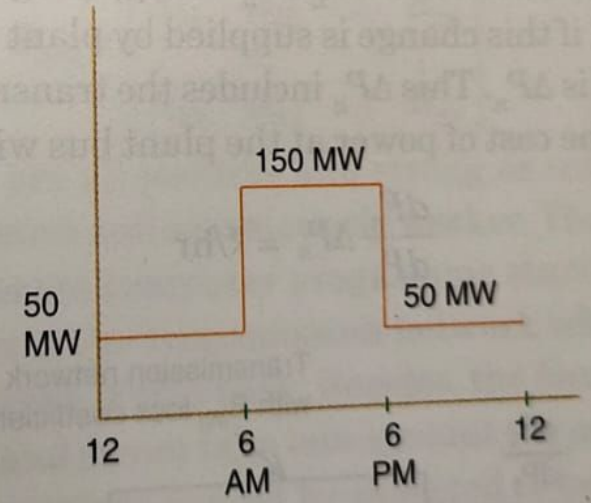
Problem

Example 19.4: Assume that the fuel input in Btu per hour for units 1 and 2 are given by

$$F_1 = (8P_1 + 0.024\,P_1^2 + 80)10^6$$

$$F_2 = (6P_2 + 0.04\,P_2^2 + 120)10^6$$

The maximum and minimum loads on the units are 100 MW and 10 MW respectively. Determine the minimum cost of generation when the following load (Fig. E.19.4) is supplied. The cost of fuel is ₹ 2 per million Btu.



Automatic Load Dispatching

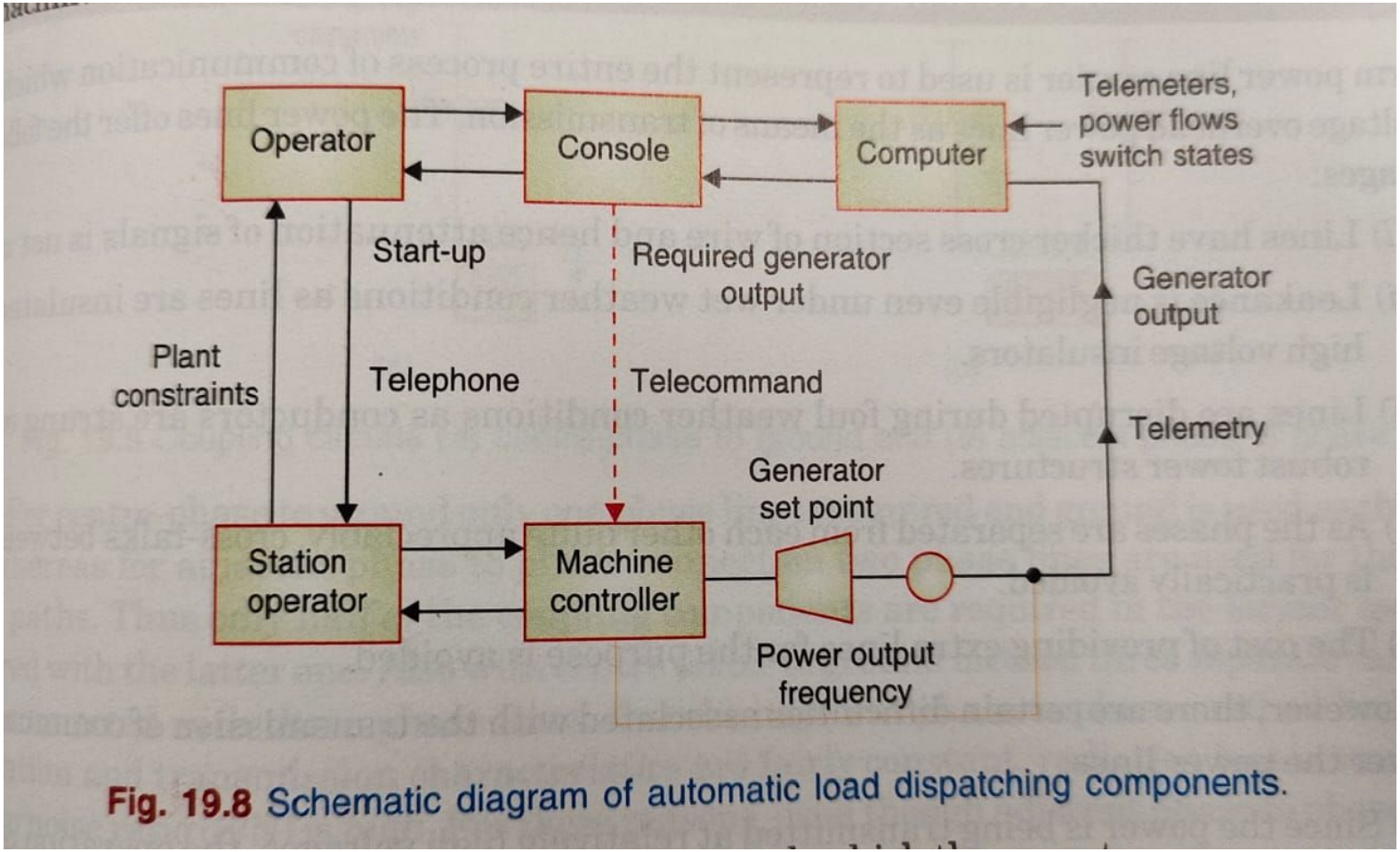
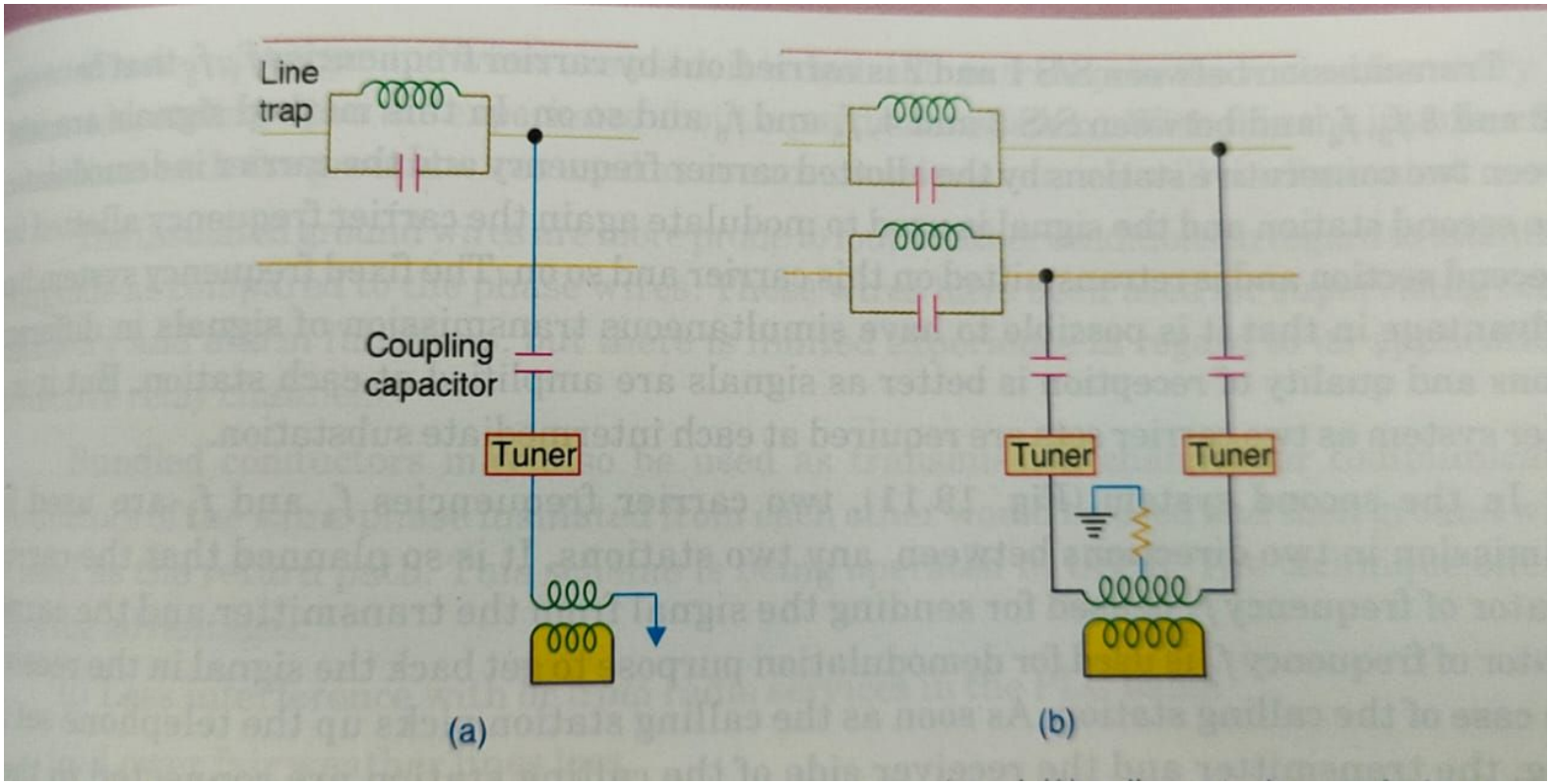


Fig. 19.8 Schematic diagram of automatic load dispatching components.

Power Line Carrier Communication



Coupling circuits a) centre-phase to ground b) adjacent phase of phase