

**FIGURE 10-11**

Lumped parameter models of an overhead valve engine cam-follower system

- †10-28 The rocker in Figure 10-11a (above) has the following dimensions:  $a = 50.8$  mm,  $b = 76.2$  mm. Its total weight is 10.1 N and, when supported on knife-edges at A and B, the weights at the supports were found to be 4.3 N and 5.8 N, respectively. The rocker was supported at its pivot point with a low-friction ball bearing and the period of oscillation was found to be 0.75 sec. What is the approximate moment of inertia of the rocker with respect to its pivot axis?

† These problems are suited to solution using *Mathcad*, *Matlab*, or *TKSolver* equation solver programs.