FIGURE 2.6

Extended example in Figure 2.1 with edge weights.

Table 2.3 Steps in Dijkstra's algorithm for the example in Figure 2.6. s in brackets denote the f-value.

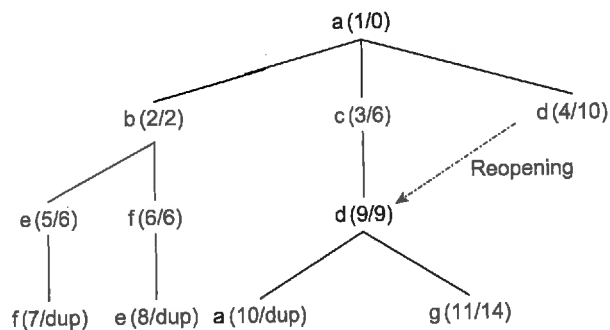| Step	Selection	Open	Closed	Remarks
1	{}	{a(0)}	{}	
2	a	{b(2),c(6),d(10)}	{a}	
3	b	{e(6),f(6),c(6),d(10)}	{a,b}	Ties broken arbitrarily
4	e	{f(6),c(6),d(10)}	{a,b,e}	f is duplicate
5	f	{c(6),d(10)}	{a,b,e,f}	e is duplicate
6	c	{d(9)}	{a,b,e,f}	d reopened, parent changes to c
7	d	{g(14)}	{a,b,e,f,c,d}	a is duplicate
8	g	{}	{a,b,e,f,c,d,g}	Goal reached

FIGURE 2.7

SINGLE-SOURCE SHORTEST PATHS search tree for the example in Figure 2.6. The numbers in brackets denote the order of node generation/f-value.

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Edelkamp and Stefan Schrödl. Heuristic Search: Theory and
Applications. Morgan-Kaufmann, 2011.