320 Chapter 5 Classification: Alternative Techniques

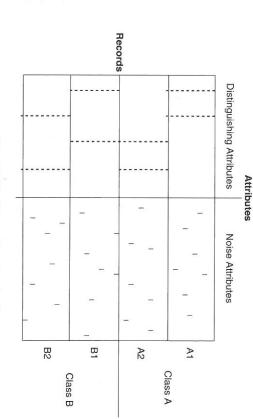


Figure 5.46. Data set for Exercise 9.

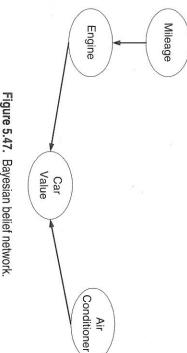


Figure 5.47. Bayesian belief network.

- (b) Use the Bayesian network to compute P(Engine = Bad, Air Condition = Broken).
- 12. Given the Bayesian network shown in Figure 5.48, compute the following proabilities:
- (a) P(B = good, F = empty, G = empty, S = yes).
- (b) P(B = bad, F = empty, G = not empty, S = no).
- (c) Given that the battery is bad, compute the probability that the car w start.
- 13. Consider the one-dimensional data set shown in Table 5.13.