1996 Paper 9 Question 8

Computational Neuroscience

It has been remarked that "neural networks are the second best way of computing just about anything." Discuss this, touching on the following issues: expressiveness; computational efficiency; generalization; sensitivity to noise; transparency (the ability to explain why a given output value is justified); the use of prior knowledge; whether neural networks fulfill our needs for a comprehensive computational theory of learning.   [20 marks]