67244

M.C.A. 5th Sem. (with new notes) (Current Scheme)

Examination–December, 2014

Soft Computing

Paper-MCA-504

Time : 3 hours   *Max. Marks : 80*

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Question No. **1** is **compulsory**. Attempt **four** more questions, selecting **one** question from each unit.

Unit-I

1. Answer the following questions briefly :

$$2 \times 8 = 16$$

   (a) Define neural nets.

   (b) What is fuzzy set ?

(c) Define fuzzy logic.

(d) Write uses of crossover.

(e) Explain biological network.

(f) Role of soft computing in drug design.

(g) List genetic operators.

(h) List advantages of ANN.

Unit-II

2. (a) Define soft computing ? How is it useful and used ? Discuss with examples. 8

(b) Discuss uses and advantages of biological neural network with examples. 8

3. Explain the following briefly with suitable examples :

(a) Problem solving with genetic algorithm

8

(b) Applications of genetic algorithm 8

Unit-III

4. (a) What is neural network ? How it is useful ? Explain with a suitable example. 8

   (b) Discuss artificial neural network applications with examples. 8

5. Describe the following with examples :

   (a) Learning in artificial neural network 8

   (b) Artificial neural network models 8

Unit-III

6. (a) What is fuzzy reasoning ? How it is useful and used ? Explain with suitable examples. 8

   (b) Discuss fuzzy sets with examples. 8

7. Explain the following with examples :

   (a) Neuro fuzzy control 8

   (b) Neuro fuzzy modelling and its uses 8

Unit-IV

8. (a) Define image processing ? How is it useful and used ? Discuss with examples. *8*

    (b) Explain Information retrieval system with suitable examples. *8*

9. Explain the following with examples :

    (a) Natural language processing and its advantages. *8*

    (b) Role of soft computing in share market analysis. *8*

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