Total No. of Questions : 8]   [Total No. of Printed Pages : 2

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Roll No ....

CS-801 (GS)

B.E. VIII Semester

Examination, May 2018

Grading System (GS)

Soft Computing

Time : Three Hours

Maximum Marks : 70

Note : i)   Attempt any five questions. All questions carries equal marks.

   ii)   Assume suitable data if missing.   rgpvonline.com

1. a)   Define production systems? What are the characteristics of production system? Explain with suitable examples.   7

    b)   Give the comparison between Breadth First Search and Depth First Search with their pros and cons.   7

2. a)   What are the limitations of Hill climbing techniques? Explain each of them in brief.   7

    b)   Describe the various issues in knowledge representation with suitable example.   7

3. a)   Define the architecture of a perceptron? What do you mean by linear separability?   7

    b)   State and explain the Hebb's learning rule for Neural network.   7

4. a)   Define activation function. Explain the purpose of activation function in multilayer neural networks. Give any two activation functions.   7

    b)   Write the characteristics and applications of Error Back Propagation Algorithm.   7

5. a)   Compare and contrast Supervised, Unsupervised and Reinforcement learning.   7

    b)   Explain the working of counter propagation network by giving its architecture.   7

6. a)   Define membership function with its features. Also, state its importance in Fuzzy logic.   7

    b)   Explain the operation of Adaptive resonance Theory for binary pattern.   7

7. a)   With neat diagram, explain the working of Fuzzy Inference System (FIS).   7

    b)   Explain the steps of Genetic Algorithm (GA).   7

8.   Write short notes on: 14

    a)   Crossover operator and its types

    b)   Tournament and Rank Selection

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