CLASS: M.TECH/PRE-PHD   SEMESTER : II/NA
BRANCH: CS   SESSION : SP/19

SUBJECT: CS524 SOFT COMPUTING

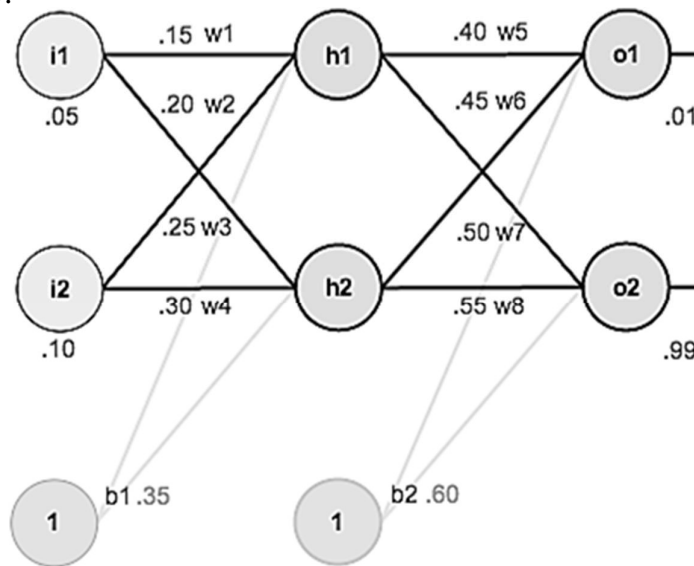TIME: 3.00 HOURS   FULL MARKS: 50

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall
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Q.1(a)   Compare fuzzy set theory and neural network. Write their pros and cons.   [5]
Q.1(b)   For two fuzzy relation investigate AxB≠BxA with help of an example.   [5]

Q.2(a)   Compare alpha cut and Power set with example.   [2+3]
Q.2(b)   Explain fuzzy inferencing for multiple rules and multiple antecedents.   [5]

Q.3(a)   Explain various paradigms of learning of neural network.   [5]
Q.3(b)   Demonstrate working of backpropagation neural network on given network. Show weight updation for   [3+2]
          one iteration only.

Q.4(a)   Argue value encoding is most suitable for real life problem.   [5]
Q.4(b)   Apply genetic algorithm to Max $f(x)=x^2$.   [5]

Q.5   Design PSO for TSP problem.   [10]

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