

Code No: 157DW**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, February/March - 2022****SOFT COMPUTING****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Answer Any Five Questions
All Questions carry equal marks**

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1. Differentiate between soft computing and hard computing. [15]
2. Explain the significance of hybrid models and discuss types of hybrid models. [15]
- 3.a) Describe the different ways of representation of fuzzy sets.
b) Illustrate fuzzy max-min composition, fuzzy max-product composition. [8+7]
4. Compare conventional programs with rule-based systems. Describe the major components of a rule-based system. [15]
5. How is multi-person decision making different from individual decision making? Describe the model which represents this type of decision making. [15]
- 6.a) Elucidate the procedure of multi-objective PSO.
b) What is the basic idea behind rough fuzzy C-means algorithm? [8+7]
7. Describe the various methods of selecting chromosomes for parents to crossover. [15]
8. Discuss the basic properties of rough approximations. [15]

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