Reg. No. : ....

Name : ....

Eighth Semester B.Tech. Degree Examination, November 2015
(2008 Scheme)
08.805 (1) : FUZZY SET THEORY AND APPLICATIONS
(Elective III) (R)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions :

(10×4=40 Marks)

1. Write short note on fuzzification.

2. List the properties of classical sets.

3. Discuss fuzzy composition techniques.

4. Explain how membership assignment is performed using intuition.

5. How is a fuzzy relation converted into a crisp relation using lambda-cut process ?

6. What are the basic logic operations performed over the propositions ?

7. Differentiate between center of sum and weighted average method.

8. How is fuzzy clustering done ?

9. Explain the application of fuzzy logic systems to image processing.

10. What are information retrieval systems ? Explain.

PART – B

Answer **any one** question from **each** Module :

(3×20=60 Marks)

Module – I

11. a) Discuss in detail the operations and properties of fuzzy sets.

    b) Explain the different methods used for membership value assignment.

          OR

12. a) Using your own intuition, plot the fuzzy membership function for the age of people very young, young, middle age, old, very old.

    b) How is rank ordering used to define membership function based on polling concept ?

Module – II

13. a) What are the different methods of defuzzification process ?

    b) Explain in detail the methods employed for converting fuzzy form to crisp form.

OR

14. a) Explain about fuzzy rule based system.

    b) Differentiate between center of sum and weighted average method.

Module – III

15. a) How is fuzzy database different from traditional database ?

    b) List and explain various applications of fuzzy logic controllers.

OR

16. Explain the organization of fuzzy neural network. List any one application of fuzzy neural network.