AE-828

M.Sc. (Final)
Term End Examination, 2016-17

COMPUTER SCIENCE

Soft Computing Techniques

Time : Three Hours]   [*Maximum Marks* : 100

Note : Answer **all** questions. All questions carry equal marks.

Unit-I

1. (*a*) Write the different tools of soft computing.

(*b*) How software computing is different from hardware computing ?

OR

(*a*) Write the benefits and application of soft computing.

(*b*) What are the requirements of soft computing ?

(2)

Unit-II

2. (*a*) What is Neural Network ? Explain with its architecture.

(*b*) Write the difference between supervised and unsupervised learning.

OR

(*a*) Explain Hopfield Network.

(*b*) Explain the following :

    (*i*) Associative memories

    (*ii*) Memory based learning

Unit-III

3. (*a*) What is α-cuts ? Write the properties of α-cuts.

(*b*) What do you mean by linguistic variable Fuzzy relations ?

OR

(*a*) Write the aggregation operations of Fuzzy logic.

(*b*) Explain about membership function of Fuzzy logic.

Unit-IV

4. (*a*) What do you mean by Genetic Algorithm ?

           (Continued)

(**3**)

(*b*) Write the different techiques of Selection.

OR

(*a*) Write short notes on Crossover and Mutation.

(*b*) Describe Binary Chromosome with example.

Unit-V

5. (*a*) Write short note on MATLAB.

(*b*) Describe the design of Neuro-fuzzy Model.

OR

(*a*) Differentiate between Neuro genetic and Fuzzy genetic technique.

(*b*) Write the application of Hybrid Soft Computing.

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