# Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

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| **Year and Program: 2020-21 Final Year B.Tech.** | **School of Technology** | **Department: Computer Science & Engineering** |
| **Course Code: CST 4132** | **Course Title: Soft Computing** | **Semester: VII** |
| **Day and Date:** | **End Semester Examination (ESE)** | **Time: 2 Hrs. Max Marks : 50** |

**Instructions**: 1) All Questions are Compulsory.

2) Figures to the right indicates full marks

| | | | Marks | Bloom's Level | CO |
|---|---|---|---|---|---|
| **Q.1** | | **Answer/Solve the following (any Two)** | | | |
| | a) | Write a note on Applications of Soft computing techniques? | 8 | L4 | CO2 |
| | b) | Explain properties of Fuzzy Sets with examples on each? | 8 | L4 | CO2 |
| | c) | Consider a fuzzy set A defined on the interval x= [0,10] of integers by the membership function. $\mu A(x) = x / x+ 2$, $\alpha$ calculate the cut corresponding to $\alpha = 0.5$ | 8 | L2 | CO1 |
| **Q.2** | | **Answer/Solve the following (any two) –** | | | |
| | a) | Write a Fuzzy algorithms used for implications? | 8 | L3 | CO3 |
| | b) | Describe "Genetics" with its application on probabilistic searching? | 8 | L3 | CO3 |
| | c) | Explain the different Genetic operators used for data mining? | 8 | L3 | CO4 |
| **Q.3** | | **Answer/Solve the following (any two) –** | | | |
| | a) | Write an algorithm for Multi-objective Evolutionary Algorithms? | 9 | L2 | CO4 |
| | b) | Describe implementation of Artificial Neural Network with any example? | 9 | L3 | CO3 |
| | c) | Write a note on recent trends in Deep Learning? | 9 | L3 | CO4 |

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