Sanjay Ghodawat University, Kolhapur

2020-21

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

EXM/P/09/00

Year and Program: B.Tech.	**School of Technology**	**Department: CSE**
Course Code: CST4132	**Course Title: Program Vertical –III (Soft Computing)**	**Semester :VII**
Day : Saturday **Date : 26/12/2020**	**End Semester Examination**	**Time : 2 Hrs.** **Max Marks : 50**

Instructions: 1) All Questions arecompulsory.

Q.1	**Answer the following (any Two)**	**Marks**	**Bloom's Level**	**CO**
a)	Elaborate on fuzzy membership functions with examples.	8	2	CO2
b)	Discuss Vector Evaluated Genetic Algorithms.	8	2	CO3
c)	Illustrate on how GA can be sued for solving 0/1 knapsack problem.	8	3	CO1

Q.2	**Answer the following (any two)**			
a)	Illustrate on selection strategies used in genetic algorithms.	8	3	CO1
b)	Comment on multi-objective genetic algorithm.	8	2	CO3
c)	Discuss how Fuzzy logic controller can be used for deciding speed of car based on weather conditions.	8	3	CO2

Q.3	**Answer the following (any two)**			
a)	Discuss how backpropagation algorithm with gradient decent works using example neural network.	9	2	CO4

b) Calculate defuzzification value for given fuzzy sets in graph using Center of Gravity (CoG)method. Refer fig. 1 | 9 | 4 | CO2

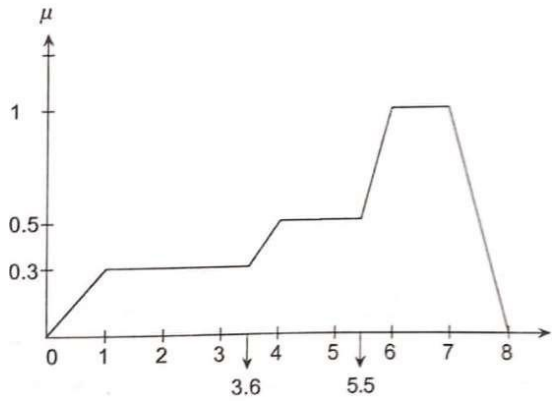


Fig. 1

c) Elaborate on convolutionneuralnetworks. | 9 | 2 | CO4

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