



K26U 0246

Reg. No. : .....

Name : .....

**Sixth Semester B.Sc. Artificial Intelligence and Machine Learning Degree  
(C.B.C.S.S. – O.B.E. – Regular) Examination, April 2026  
(2023 Admission)  
Core Course  
6B18AIML : SOFT COMPUTING**

Time : 3 Hours

Max. Marks : 40

**PART – A  
(Short Answer)**

Answer **all** questions. **Each** question carries **1** mark.

1. What is hard computing ?
2. Define fuzzy logic.
3. State any one stopping condition of genetic algorithm.
4. Define fuzzy proposition.
5. Give one example for a fuzzy rule.
6. Mention any two applications of genetic algorithm.

**(6×1=6)**

**PART – B  
(Short Essay)**

Answer **any six** questions. **Each** question carries **2** marks.

7. Define fuzzy relations.
8. What is meant by a membership function ?
9. What is defuzzification ?
10. What is a fuzzy if-then rule ?

P.T.O.



11. Explain any one genetic operator used in GA.
12. Write a note on fuzzy reasoning.
13. Explain the term hybrid systems.
14. Define fuzzy inference system.

(6×2=12)

**PART – C**  
**(Short Essay)**

Answer **any 4** questions. **Each** question carries **3** marks.

15. Explain fuzzy expert systems.
16. Differentiate between a crisp set and a fuzzy set.
17. Explain the concept of Neural network.
18. Define a fuzzy controller and mention its components.
19. What-are fuzzy implications ?
20. Explain the basic steps involved in a genetic algorithm.

(4×3=12)

**PART – D**  
**(Long Essay)**

Answer **any two** questions. **Each** question carries **5** marks.

21. Describe the various soft computing techniques with suitable examples.
22. Discuss the operations and properties of fuzzy sets.
23. Explain fuzzy rule base and approximate reasoning.
24. Discuss the advantages and disadvantages of genetic algorithms.

(2×5=10)

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