School of Computing Science and Engineering
Department of Computing Science and Engineering
Mid Term Examination

Exam Date: 29 Sep 2023
Time : 90 Minutes
Marks : 50

Sem VII - CSAI4703 - Genetic Algorithm
Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1) Express the genetic algorithms mimic natural selection.   K2 (2)

2) Differentiate between traditional methods and genetic algorithms.   K1 (3)

3) Explain the concept of the multi-armed bandit problem.   K2 (4)

4) Explain how the Schema Theorem relates to genetic algorithms.   K2 (6)

5) Describe the concept of crossover (recombination) operators in   K3 (6)
    genetic algorithms.

6) Design a genetic algorithm to solve the traveling salesman problem.   K3 (9)

7) Analyze the role of crossover operators in genetic algorithms.   K4 (8)

8) Develop a hybrid approach that combines genetic algorithms with a   K4 (12)
    local search method.

OR

Analyze the effectiveness of a genetic algorithm in optimizing a   K4 (12)
complex engineering design problem.