

B. E. POWER ENGG. 3RD YEAR 2ND SEMESTER EXAMINATION 2025

Optimization Techniques

TIME: THREE HOURS

FULL MARKS: 100

1. a) What is meta-heuristic optimization? 5[CO1]
b) Categorize the meta-heuristic technique. 7[CO1]
c) Describe the common features of different meta-heuristic techniques? 8[CO1]
2. Describe linear programming method and quadratic programming method. 20 [CO2]
3. Describe Hopfield neural network. 20 [CO3]
- OR
3. Describe briefly differential evolution with flowchart. 20 [CO3]
4. Describe briefly student psychology based optimization algorithm with flowchart. 20 [CO4]
- OR
4. Describe briefly grey wolf optimization technique with flowchart. 20 [CO4]
5. a) What is Pareto optimal solutions? 5 [CO5]
b) Describe briefly nondominated sorting genetic algorithm-II with flowchart. 15 [CO5]