

UNIVERSITÀ DEGLI STUDI ROMA TRE
Collegio Didattico di Ingegneria Informatica
Ottimizzazione della Logistica – terza prova intermedia
7 febbraio 2012

Nome:

Cognome:

NB: Questa prova è in lingua Inglese, è quindi necessario rispondere alle domande in Inglese, eventuali parti in Italiano non verranno considerate ai fini della valutazione

Question 1

Describe the necessary components of a Greedy Local Search.

Question 2

Draw the components of a GA (Genetic Algorithm) and describe the purpose or content of each component.

Question 3

Name 4 different Local Search based Meta-Heuristics, and explain what type of mechanisms they use to get out of a local optimum.

Question 4

Describe the main differences between Genetic Algorithms and Scatter Search.

Question 5

Which methods have active diversification strategies, and describe how they work.

Small questions

- a) What is the purpose of the Aspiration Criterion?
- b) What is the move acceptance criterion in Target Accepting?
- c) How do ants communicate about feeding places?
- d) What is GRASP?
- e) Explain what Path Relinking is.
- f) What is Ruin-and-Recreate?
- g) What is Stigmergy?
- h) What is the move acceptance criterion in Simulated Annealing?