f 10

Which of the following algorithms is NOT an evolutionary algorithm?

A Genetic Algorithm

B Harmony Search

C Particle Swarm Optimization

D Depth-first Search

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Which of the following knowledge is NOT required for applying evolutionary algorithms?

A Fitness function

B Gradient/Derivative of the problem function.

C How an individual can be evaluated.

D How to create new individual.

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Which of the following operators DOES NOT create new offspring from the current population?

A Crossover

B Mutation

C Selection

D Update parameter values of individuals.

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How are the offspring solution compared to the parent solutions?

A Offspring are often better than parents.

B Parents are often better than offspring.

C Parents and offspring have the same quality on average.

D It depends on the variation operators (i.e., crossover, mutation,...).

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When can we terminate the run of an evolutionary algorithm?

A. The computing budget is run out.

B. All the population converges to the same individual.

C. An acceptable solution has been obtained.

D. All of the above.

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What do you think is the strongest advantage of evolutionary algorithms over other kinds of optimization methods?

A. Gradients or problem-specific knowledge are not required.

B. The framework of evolutionary algorithms is easy to implemented.

C. A population of multiple individuals is often maintained and operated, thereby resulting in an implicit parallelism.

D. Local optima can be easily escaped.