

Answer To The Question No- 5

The main difference between local and global minimizers lies in the scope of their optimality. A local minimizer is optimal within a restricted neighborhood, while a global minimizer is optimal over the entire search space.

It is crucial to keep in mind that, particularly in non-linear, non-convex optimization situations, finding global minimizers can be considerably more difficult than finding local minimizers. In order to search the whole search space and find the global minimizer, global optimisation methods frequently use more advanced techniques like exhaustive search, evolutionary algorithms, or stochastic optimisation methods.

In the given figure P is the local minimizer. Because there is also a lesser value in the graph.