**Blue Waters Petascale Semester Curriculum v1.0**

**Unit 2: Parallel Computing Concepts**

**Lesson 3: Scalability Metrics**

**Sample Assessment**

*Developed by Nitin Sukhija for the Shodor Education Foundation, Inc.*



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*Browse and search the full curriculum at*[*http://shodor.org/petascale/materials/semester-curriculum*](http://shodor.org/petascale/materials/semester-curriculum)

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*We want to hear from you! Please let us know your experiences using this material by sending email to* [*petascale@shodor.org*](mailto:petascale@shodor.org)

1. Describe the benefits of parallelism.
2. Describe the sources of parallel overhead.
3. What is Amdahl’s Law?
4. What is Gustafson’s Law?
5. Explain speedup, efficiency and iso efficiency metrics of the parallel system.
6. Name some speedup factors that lead to performance enhancement in parallel programs.