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

**Unit 3: Using a Cluster**

**Lesson 4: Running Code on a Cluster 1**

**Sample Assessment**

*Developed by Juan R. Perilla for the Shodor Education Foundation, Inc.*



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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 best usage policy for the types of file systems present in a typical cluster.
2. What type filesystem would you use for staging ?
3. Describe the purge policy of $SCRATCH.
4. Explain the differences between a multi-core and a multi-node job.
5. Describe the difference between a hw-thread and a logical-thread.
6. Describe CPU-affinity ? What’s its purpose? How is it controlled from the submission script?
7. What is the difference between login nodes and compute nodes? How do you determine which type of node is your code being executed in?