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**B.E./B.Tech. DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2014**

**CS 9039 - GRID COMPUTING**

**Time : 3 Hours**

**Max. Marks : 100**

**Part A (10\*2=20)**

**ANSWER ALL QUESTIONS**

1. Differentiate between grid computing and cluster computing.
2. List out the pros and the cons of WSRF and OGSI.
3. What is Cross-API monitoring?
4. Why is grid monitoring necessary?
5. Name the major goals of grid security.
6. Define push-pull model.
7. What are the five major classifications of structured data?
8. List the grid services provided by first generation grid portals.
9. Name any four grid middlewares.
10. What is GWSDL?

**Part B (5\*16=80)**

- 11.(i) Briefly, explain the layered architecture of grid. (10)  
(ii) Discuss about the core components of autonomic grid services. (6)

- 12.a.(i) Explain the architecture of Relational Grid Monitoring Architecture. (10)  
(ii) Explain the essential features of grid monitoring system. (6)

**(OR)**

- b.(i) Explain the layered architecture of GridICE. (10)  
(ii) Justify why data used for monitoring should have timing, flow and content information associated with it. (6)

- 13.a.(i). Discuss briefly on Grid Security Infrastructure (10)  
(ii) Explain public key infrastructure, certification authority. (3+3)

**(OR)**

- b.(i) List and explain the sequential series of processes involved in scheduling. (10)  
(ii) Compare and contrast Condor, PBS, SGE, LSF. (6)

- 14.a.(i) With an illustration, discuss data transport services and data discovery services. (10)  
(ii) Discuss – Earth System Grid (6)

**(OR)**

- b.(i) Discuss the architecture and implementation of portlets of Jetspeed portal framework. (10)  
(ii) Explain the MyProxy credential management system with grid portal. (6)

- 15.a. Explain the Globus GT5.2 toolkit architectural features, security features and its services. (16)

**(OR)**

- b. Explain the gLite middleware architectural features, security features and its services (16)

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