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B.E / B.Tech(Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2012

COMPUTER SCIENCE AND ENGINEERING

SIXTH SEMESTER

CS9039 – GRID COMPUTING

(Regulation 2008)

27

Time : 3 Hours

Answer ALL Questions

Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. Define Parallel Computing.
2. What is WSRF?
3. What is the need of Grid Monitoring Systems?
4. Explain the features of R-GMA
5. Comment on the leading scheduling systems like Platform LSF, Sun Grid Engine and PBS Pro.
6. Discuss the various criteria used for job scheduling in Grid.
7. List the significant differences between first generation and second generation Grid Portals.
8. What is a Grid Service?
9. What are the high level services included in existing globus tool kit?
10. What is the significance of middleware in Grid Computing?

Part – B (5 x 16 = 80 marks)

11. With various parameters, compare parallel, distributed, cluster and grid computing. (16)

12. a) With the help of a neat sketch explain the components of Grid Monitoring

Architecture

(16)

OR

b) Write notes on the following grid monitoring systems. (16)

i) GridICE

ii) JAMM

iii) Ganglia

iv) GridMon

(P.T.O.)

13. a) Write briefly about the authentication in Grid giving emphasis on the PKI-X509 certificate. (16)

OR

b) What is SGE? Explain its features. (16)

14. a) Explain in detail the challenges in data management in Grid. (16)

OR

b) Discuss in detail the importance of Grid portals. (16)

15. a) Write notes on organizations developing grid computing toolkits frameworks and middleware solution. (16)

OR

b) Explain in detail the architecture, components and features of gLite. (16)