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**Question Paper Code : 60337**

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2012.

Eighth Semester

Computer Science and Engineering

IT 1012/CS 1018/070230091 — GRID COMPUTING

(Common to Information Technology)

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is virtualization and how it improves the performance of grid?
2. List some of the QoS features available in Grid Computing.
3. Mention the four basic principles of Autonomous Computing.
4. Define the role of Scheduler in the Grid Computing Context.
5. What are the classifications of service state management?
6. Differentiate data for the grid and data on the grid.
7. Define OGSA Components.
8. State the role of Collective layer in the Grid architecture.
9. Discuss the factory methods of the Grid Programming model.
10. List and state the principles of different Information provider for the grid environment.

PART B — (5 × 16 = 80 marks)

11. (a) Discuss evolution of the Grid in detail. (16)

Or

(b) (i) Explicate different application areas of the Grid. (8)

(ii) Explain Grid Community with an example. (8)

12. (a) (i) Describe the significance of information services as a part of Grid. (8)

(ii) Write a short note on the objectives of the NASA Information Power Grid. (8)

Or

(b) Paraphrase the Layered Grid architecture in detail. (16)

13. (a) Explain in detail about the components of SOAP processing model and Message exchange pattern in detail. (16)

Or

(b) (i) Write notes on Web Service interoperability. (8)

(ii) Explain the GXA (Global XML Architecture) and its dependencies with a neat diagram. (8)

14. (a) (i) Define Grid Security. With a neat diagram, discuss Grid Security Infrastructure. (8)

(ii) Explain the steps to run a job in a Grid Environment. (8)

Or

(b) Summarize OGSA with a neat diagram and its components. (16)

15. (a) Explain the Index Service implementation of Globus Tool Kit. (16)

Or

(b) Elaborate the OGSI.Net Middleware in detail. (16)