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**Question Paper Code : 52876**

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Seventh/Sixth Semester

Computer Science and Engineering

CS 6703 — GRID AND CLOUD COMPUTING

(Common to : Information Technology)

(Regulation 2013)

(Also common to PTCS 6703 – Grid and cloud computing for B.E. Part Time – Sixth Semester – Computer Science and Engineering – Regulation 2014)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is grid computing?
2. Why the web services are a key enabler in grid computing?
3. Give the requirements to describe the web services based on OGSI.
4. Compare web service versus grid service.
5. Who are the major players in cloud?
6. Define virtualization.
7. List out the main components of Globus tool kit.
8. Give the significance of heart beat message in Hadoop.
9. List out the security challenges in cloud.
10. How can the data security be enforced in cloud?

PART B — (5 × 13 = 65 marks)

11. (a) Explain the infrastructure requirements for grid computing.

Or

(b) Illustrate the grid architecture in detail.

12. (a) Describe about OGSA framework in detail.

Or

(b) Illustrate the OGSA basic services.

13. (a) Describe the different working models of cloud computing.

Or

(b) Explain the virtualization of CPU, memory and I/O devices.

14. (a) Explain the Globus toolkit architecture in detail.

Or

(b) Illustrate the Hadoop implementation of MapReduce framework.

15. (a) Illustrate the Grid security infrastructure in detail.

Or

(b) How is the identity and access management established in cloud to counter the threats?

PART C — (1 × 15 = 15 marks)

16. (a) Develop a word count application with Hadoop MapReduce programming model.

Or

(b) Analyze how the virtualization technology supports the cloud computing.