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10CS/IS845

**Eighth Semester B.E. Degree Examination, June/July 2017**

**Clouds, Grids and Clusters**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting at least TWO questions from each part.**

**PART – A**

- 1 a. List the services provided by cloud computing. Explain the benefits and problems/obstacles of these services. (10 Marks)  
b. When a customer cannot use the cloud? What are the factors that influence him to reject cloud computing? (10 Marks)
- 2 a. With respect to hardware and infrastructure as a service, what are the inherent security benefits provided by cloud computing? (10 Marks)  
b. List and explain the operational, economical and staffing benefits by using cloud services. (10 Marks)
- 3 a. What are the design requirements and principles of Amazon S3 and Google Big Table? (10 Marks)  
b. Discuss about standards used in cloud computing with respect to communication, security and client. (10 Marks)
- 4 a. What are the driving forces behind SaaS to make it very popular? (10 Marks)  
b. What are the offerings of Google and Microsoft for SaaS? (10 Marks)

**PART – B**

- 5 a. What is grid computing? What is meta computing? What does a meta computer consists of? (10 Marks)  
b. Distinguish between control grid and distributed grid approach. List the key functional requirements of grid computing. (10 Marks)
- 6 a. Explain the architecture of Condor G and Nimrod G software tools for grid computing. (10 Marks)  
b. Explain the GT4 architecture and functionalities. (10 Marks)
- 7 a. What is cluster computing? Explain the basic architecture of a cluster. (10 Marks)  
b. Discuss about tools and techniques essential for cluster computing. (10 Marks)
- 8 a. List and explain the various cluster configurations for high availability. (10 Marks)  
b. Explain the features and functions of job management system (JMS). (10 Marks)

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Important Note : 1. On completing your answer, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification number, appeal to evaluator and /or equations written eg, 42+8=50, will be treated as malpractice.