



USN

--	--	--	--	--	--	--	--	--	--

10CS/IS845

**Eighth Semester B.E. Degree Examination, June/July 2015**  
**Clouds, Grids and Clusters**

Time: 3 hrs.

Max. Marks: 100

**Note:** Answer any FIVE full questions, selecting atleast TWO questions from each part.

**PART – A**

- 1 a. Define Cloud computing. Which are the components that make up a cloud computing solution? (08 Marks)  
b. What is Paas? Explain its types and trends. (06 Marks)  
c. What are the benefits and limitations of cloud computing? (06 Marks)
- 2 a. List and explain operational and staffing benefits of cloud computing. (08 Marks)  
b. What are the cloud services offered by Microsoft for an organizations? (06 Marks)  
c. Explain Thomson Reuter in detail. (06 Marks)
- 3 a. What are the security benefits of cloud computing? Explain. (08 Marks)  
b. What are the design requirements and design principles of Amazon Simple Storage Services. (06 Marks)  
c. Explain the web service standard REST, with its benefits. (06 Marks)
- 4 a. Which are the driving forces that makes SaaS as popular service? (08 Marks)  
b. With the offerings, list the prevalent companies who provide software plus service. (06 Marks)  
c. List and explain cloud services available for individuals. (06 Marks)

**PART – B**

- 5 a. Define Grid computing. Explain meta computing in detail. (08 Marks)  
b. With neat diagram, explain distributed grid computing environment. (06 Marks)  
c. List and explain WSRF specification. (06 Marks)
- 6 a. Explain the following grids :  
i) Science Grid of DOE    ii) NASA'S information power Grid. (06 Marks)  
b. Explain SoA, with its architecture. (06 Marks)  
c. Discuss the action and working of GTH container. (08 Marks)
- 7 a. Define and explain cluster computing with its architecture. (06 Marks)  
b. Write the architecture of cluster middle ware and explain levels and layers of Single System Image (SSI). (08 Marks)  
c. With its layered architecture, explain Condor. (06 Marks)
- 8 a. List and explain various alternative cluster configuration for high availability. (08 Marks)  
b. What are the functionalities expected from JMS in cluster environment? (06 Marks)  
c. What are the strategies of load balancing? Explain. (06 Marks)

\*\*\*\*\*

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