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10CS/IS845

**Eighth Semester B.E. Degree Examination, Jan./Feb. 2021**  
**Cloud, Grids and Clusters**

Time: 3 hrs.

Max. Marks: 100

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

**PART – A**

- 1 a. What is cloud computing? Discuss various services offered by cloud and also write various categories of cloud. (08 Marks)  
b. When can cloud computing be used? Discuss the benefits and limitations of cloud. (12 Marks)
- 2 a. Explain operational and economic benefits of cloud. (10 Marks)  
b. Explain the various staffing benefits of cloud. (10 Marks)
- 3 a. Discuss about types of clients in the cloud and security issues in the cloud. (10 Marks)  
b. Explain design requirement and design principles of Amazon Simple Storage Service (S3) (10 Marks)
- 4 a. Explain in detail the driving forces for SaaS. (08 Marks)  
b. What are the types of virtualization? Discuss the benefits and limitation of a virtualized solution. (12 Marks)

**PART – B**

- 5 a. What is meta computing? What does a meta computer consist of? (06 Marks)  
b. What is layered architecture of a grid? (08 Marks)  
c. Explain in brief the specifications of WSRF. (06 Marks)
- 6 a. What are the objectives, areas of interest of GGF? (07 Marks)  
b. What is a web service? How do web services work and interact? (05 Marks)  
c. Explain the architecture and functionality modules of GT4. (08 Marks)
- 7 a. What are the various layers in SSI? Explain each layer. (05 Marks)  
b. Explain Condor Architecture. (09 Marks)  
c. What are the various design considerations for the front end of a Cluster? (06 Marks)
- 8 a. Explain the various cluster architecture and configurations for High Availability cluster. (08 Marks)  
b. What are the various performance measures and metric? Explain each. (07 Marks)  
c. Explain load balancing approach. (05 Marks)

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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.