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10CS/IS845

**Eighth Semester B.E. Degree Examination, June/July 2019**  
**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. Explain the components of cloud computing solution in detail. (08 Marks)  
b. What are the benefits and limitations of Cloud Computing? (08 Marks)  
c. List and explain any 4 conditions when you should not use Cloud Computing. (04 Marks)
- 2 a. List and explain operational and economic benefits that help your business. (10 Marks)  
b. Explain Cloud services offered by microsoft. (10 Marks)
- 3 a. Explain the design requirements and design principles for Amazon simple storage service. (10 Marks)  
b. Explain the security benefits of cloud computing in detail. (05 Marks)  
c. List and explain services that affect how cloud infrastructure is deployed. (05 Marks)
- 4 a. What are the driving forces that make SaaS as popular services? (08 Marks)  
b. With the offerings , list the prevalent companies who provide software plus service. (07 Marks)  
c. List the capabilities offered by V motion migration tool. (05 Marks)

**PART - B**

- 5 a. What is a meta computer? Explain its components. (10 Marks)  
b. Explain key functional requirements in grid computing. (04 Marks)  
c. Explain six layered architecture of grid. (06 Marks)
- 6 a. Explain the action and working of G4 container. (08 Marks)  
b. Explain the specifications in brief for WSRF. (06 Marks)  
c. Define i) SOA ii) STUBS iii) WEB SERVICE. (06 Marks)
- 7 a. Define Cluster computing. Explain the architecture of a cluster and functionalities. (08 Marks)  
b. Explain Cluster programming environment and tools in detail. (12 Marks)
- 8 a. List the measures and metrics that are used to measure the performance of a cluster. (04 Marks)  
b. Describe the functionalities of Job Management System (JMS). (06 Marks)  
c. Write a short note on Scheduling policies and load balancing in cluster environment. (10 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.