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Eighth Semester B.E. Degree Examination, Dec.2016/Jan.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. What is cloud computing? With a neat diagram, explain the main components of cloud computing. (06 Marks)
- b. Describe software as a service (SaaS) of cloud computing. (06 Marks)
- c. Explain the benefit and limitations of cloud computing to the organizations. (08 Marks)
- 2 a. List and explain the tips for evaluating SaaS. (08 Marks)
- b. Describe the six services provided by Amazon as a cloud vendor. (06 Marks)
- c. What are the staffing benefits of cloud computing from the following perspectives :
i) Consumer ii) Provider (06 Marks)
- 3 a. Describe the six issues to be considered for providing security in cloud. (06 Marks)
- b. Compare the four types of network connection with respect to their capability and limitations. (08 Marks)
- c. Explain the following type of web services :
i) Representation State Transfer (REST)
ii) Simple object Access Protocol (SOAP). (06 Marks)
- 4 a. Describe the features of Google as a SaaS provider. (04 Marks)
- b. Write the pros and cons of software plus services. List the major vendors of software plus services. (08 Marks)
- c. What are the benefits of virtualization? Explain the concerns and the process of implementing virtualization. (08 Marks)

PART – B

- 5 a. What is grid computing? Explain the four key requirements of grid computing. (05 Marks)
- b. With a neat diagram, describe the layered architecture of the grid computing. (08 Marks)
- c. Explain the following :
i) Storage Request Broker (SRB) ii) Port Types of grid service specification. (07 Marks)
- 6 a. What is GGF? What are its objectives? List the major areas of concern in GGF. (08 Marks)
- b. Describe the process of web services creation and invocation. (05 Marks)
- c. With a neat diagram, explain the actions performed and functionalities of a GT4 container. (07 Marks)
- 7 a. What is cluster computing? With a neat diagram, explain the architecture of cluster middleware to provide single system image of the cluster. (10 Marks)
- b. With a neat diagram, explain the layered resource management architecture of condor in high throughput clusters. (06 Marks)
- c. Explain the process of system monitoring in clusters. (04 Marks)
- 8 a. Describe the various types of cluster configurations for high availability. (10 Marks)
- b. Explain the functions performed by the job management systems in a 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.