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10CS/IS845

Eighth Semester B.E. Degree Examination, Dec.2015/Jan.2016
Clouds, 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. Define cloud computing. Explain the key characteristics of cloud computing. (06 Marks)
b. Justify how Cloud computing is different from Grid computing. (04 Marks)
c. What are the benefits and limitations of cloud computing? (10 Marks)
- 2 a. Illustrate the services offered by cloud computing in detail. (12 Marks)
b. Examine the benefits of cloud computing services from the business perspective. (08 Marks)
- 3 a. Examine the different levels of connectivity needed for cloud to deliver its best resources. (12 Marks)
b. Define storage as a service in cloud computing. List the different service providers and mention their offerings towards storage as a service. (05 Marks)
c. Write the significance of SOAP and REST during a web service. (03 Marks)
- 4 a. Explain software plus service. What are the pro and cons of this software plus service? List any 4 vendors and their offerings. (10 Marks)
b. What do you mean by server sprawl? Suggest a solution to this with an example product in detail. (10 Marks)

PART – B

- 5 a. What is meta computing? How can it be achieved? (04 Marks)
b. Justify how clustering is different from grid computing. Demonstrate with their service models. (06 Marks)
c. Explain the layered architecture of grid computing. (06 Marks)
d. Briefly explain the WSRF specifications. (04 Marks)
- 6 a. Explain the architecture and functionality modules of Globus Tool Kit 4. (06 Marks)
b. Explain what is SoA and how it functions. (06 Marks)
c. Write a short note on Condor G and Nimrod G. (08 Marks)
- 7 a. Explain the cluster middleware architecture and highlight the benefits of SSI. (10 Marks)
b. Define High Throughput Computing [HTC] cluster. Give the layered architecture of condor. Explain. (10 Marks)
- 8 a. Explain the different cluster configurations for achieving High Availability. (10 Marks)
b. 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, carefully 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, be treated as malpractice.