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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

First Semester, M.Tech - Computer Engineering (MCEN)

Semester End Examination; Jan - 2017

Cloud Computing

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

- 1 a. Discuss the various security concerns and regulations that are involved in cloud computing with suitable examples. 10
- b. Briefly explain the various cloud computing services provided by :
 - (i) Google 10
 - (ii) Salesforce.com.
- 2 a. Discuss operational, economical and staffing benefits that a consumer and provider gain. Considering the business case for getting into the cloud. 10
- b. List and explain the limitations of cloud computing with suitable examples. 10

UNIT - II

- 3 a. Explain the overview of cloud storage with suitable examples of cloud storage providers. 10
- b. Define SaaS. Discuss the advantages to your organization while pursuing SaaS. 10
- 4 a. Discuss the concept of server virtualization, application virtualization and presentation virtualization with suitable industry level products/offerings. 10
- b. Explain the concept of migration to the cloud using thin clients. 10

UNIT - III

- 5 a. Define meta computer. Discuss the essential components of meta computer. 10
- b. Explain the objectives of an e-governance grid and how can they be realized? 10
- 6 a. Differentiate between central grid approach versus distributed grid computing environment with a suitable sketch. 10
- b. Discuss the key functional requirements in grid computing with a layered architecture. 7
- c. What is data farm architecture? Explain its main features. 3

UNIT - IV

- 7 a. Discuss the concept/architecture of a cluster. Explain the categories of clusters with a suitable example. 10
- b. Explain the concept of resource management and scheduling in a cluster environment. 10

- 8 a. Discuss how to setup simple clusters? With a neat sketch explain how meta clusters are created using a secured tunnel? 10
- b. Explain directory services. How are heterogeneous clusters managed? 10

UNIT - V

- 9 a. Discuss the various clusters architectures and configurations for High availability with suitable sketches. 12
- b. Explain the functionality of failure/recovery clusters. 8
- 10 a. Differentiate between static load sharing approach and dynamic load sharing approach with suitable examples. 10
- b. Write short notes on : 10
 - i) Beowulf
 - ii) PARAM.

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