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10CS/IS845

Eighth Semester B.E. Degree Examination, June/July 2016
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? Explain three components of cloud computing solution. **(08 Marks)**
   b.   Differentiate full virtualization with para virtualization in detail. **(05 Marks)**
   c.   Explain the various limitations and benefits of cloud computing. **(07 Marks)**

2   a.   Explain various cloud computing services by taking the example of following vendors :
      i) AMAZON EC2   ii) RIGHTSCALE   iii) GOOGLE APP ENGINE **(09 Marks)**
   b.   Explain the various offers of cloud services from Microsoft for organizations. **(06 Marks)**
   c.   List out and briefly explain the operational and Economical benefits of using cloud computing. **(05 Marks)**

3   a.   Explain three different types of clients that can link to the cloud. **(06 Marks)**
   b.   Briefly explain the different levels of connectivity needed to access the cloud via internet. **(08 Marks)**
   c.   What do you mean by storage as a service? Explain Google Big table Data store and its working in detail. **(06 Marks)**

4   a.   What is SaaS? Explain the various advantage of pursuing SaaS to any organizations. **(08 Marks)**
   b.   List out and explain the various offerings of Google's SaaS. **(07 Marks)**
   c.   Briefly explain software plus services (S+S) and its offerings. **(05 Marks)**

PART – B

5   a.   What is Grid? Explain its layered Architecture and key functional requirements in Grid computing. **(08 Marks)**
   b.   What is meta computer? Explain its architecture in detail. **(07 Marks)**
   c.   Explain the specifications in brief for WSRF. **(05 Marks)**

6   a.   Define: i) SOA   ii) STUBS   iii) WEB SERVICE **(06 Marks)**
   b.   Show all the steps involved in creating web services on client-side and server side using stubs, with their architecture. **(08 Marks)**
   c.   Explain briefly the architecture of GT4 with the help of a diagram. **(06 Marks)**

7   a.   What is cluster? Explain its basic architecture. **(07 Marks)**
   b.   Write short notes on the following :
      i) Single System Image (SSI)   ii) message Passing System (MPS). **(08 Marks)**
   c.   Explain Layered Architecture of Condor. **(05 Marks)**

8   a.   Explain in detail various alternate cluster configurations for high availability. **(10 Marks)**
   b.   Briefly explain :
      i)   JOB MANAGEMENT SYSTEM (JMS)
      ii) RESOURCE MANAGEMENT SYSTEM (RMS) **(10 Marks)**

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