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10CS/IS845

Eighth Semester B.E. Degree Examination, Dec.2018/Jan.2019
Clouds, Grids & 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. What is cloud computing? With a neat diagram, explain the main components of a cloud system. **(07 Marks)**
b. Explain the various types of cloud delivery services. **(06 Marks)**
c. Describe the benefits and limitations of cloud computing to the organizations. **(07 Marks)**

2 a. How do you evaluate SaaS? Explain. **(08 Marks)**
b. Elucidate the operational benefits of moving to cloud. **(06 Marks)**
c. Explain the cloud services by Amazon and Google. **(06 Marks)**

3 a. Compare the types of internet connectivity for clouds. **(08 Marks)**
b. Explain the working of S3 and big table data stores. **(06 Marks)**
c. What is open virtualization format? Describe the standards developed by VMWare to work with other vendors. **(06 Marks)**

4 a. Describe the benefits of software plus services for the organizations. List any four vendors of this service. **(07 Marks)**
b. What is virtualization? Why it is needed? Explain how virtualization is carried out. **(07 Marks)**
c. Explain the offerings of HP and Dell as thin clients. **(06 Marks)**

PART – B

5 a. What is grid computing? Explain the key functional requirements for any grid. **(05 Marks)**
b. Describe the layered architecture of a grid system. **(06 Marks)**
c. Explain the WSRF specifications used in managing WS-Resource. **(05 Marks)**
d. Elucidate the port types supported by Grid Service Specification (GSS). **(04 Marks)**

6 a. What is GGF? Write the objectives of GGF. **(06 Marks)**
b. With a neat diagram, explain the architecture of CondorG. **(05 Marks)**
c. Explain the process of creation and invocation of web services. **(04 Marks)**
d. With a neat diagram, explain the functions performed by GT4 container. **(05 Marks)**

7 a. What is a cluster? Explain the various categories of clusters. **(06 Marks)**
b. With a neat diagram, explain the cluster middleware architecture and how it provides single system image. **(08 Marks)**
c. Explain the process of system monitoring and directory services in clusters. **(06 Marks)**

8 a. Describe the various cluster architectures and configurations for high availability. **(10 Marks)**
b. Elucidate the policies for resource utilization in cluster environment. **(10 Marks)**

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