10CS/IS845

Eighth Semester B.E. Degree Examination, Dec.2017/Jan.2018
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 the cloud components.   **(08 Marks)**
     b. Justify when one should use and when not to use cloud computing.   **(08 Marks)**
     c. Briefly explain about two major limitations of cloud.   **(04 Marks)**

2   a. If your are running a business, justify the use of cloud by elaborating the benefits offered by cloud.   **(08 Marks)**
     b. Indentify the key points, how the use of cloud benefits the staff at consumer and provider sides.   **(08 Marks)**
     c. Explain about cloud at Thomson Reuters.   **(04 Marks)**

3   a. Explain different levels of connectivity needed to use cloud through internet.   **(08 Marks)**
     b. What are the three different types of clients that can use cloud services?   **(06 Marks)**
     c. Explain Amazon simple storage service.   **(06 Marks)**

4   a. What is software as a service? What are the driving forces that make the SaaS popular?
                                                                                  (08 Marks)
     b. What is Virtualization? How companies gets benefited using Virtualization?   **(07 Marks)**
     c. Explain the cloud services available for individuals.   **(05 Marks)**

PART – B

5   a. Explain Grid computing. Elaborate how gird concept is used in projects FAFNER and I-WAY.   **(08 Marks)**
     b. Explain the layered Grid architecture.   **(07 Marks)**
     c. What is WSRF? Mention its specifications.   **(05 Marks)**

6   a. Explain DOE'S science Grid project.   **(06 Marks)**
     b. Explain the procedure to create web services using stubs.   **(08 Marks)**
     c. Briefly explain about Globus project and Globus toolkit.   **(06 Marks)**

7   a. Explain Cluster middleware architecture and levels of single system image.   **(07 Marks)**
     b. Explain early cluster architectures.   **(08 Marks)**
     c. Briefly explain the concept of metaclusters.   **(05 Marks)**

8   a. Explain different faults and error detection mechanisms used in clusters.   **(06 Marks)**
     b. What are the different performance measures and metrics used to evaluate clusters?
                                                                                  (06 Marks)
     c. Explain in detail the Beowulf cluster.   **(08 Marks)**

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