USN
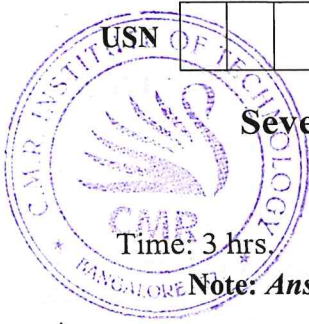
15CS742

Seventh Semester B.E. Degree Examination, Aug./Sept. 2020
Cloud Computing and its Applications

Time: 3 hrs.

Max. Marks: 80

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. Briefly explain the core technologies that play an important role in the realization of cloud computing. **(08 Marks)**
   b. With a neat diagram, explain the VMWare cloud solution stack. **(08 Marks)**

OR

2 a. Explain the paravirtualization technique supported in xen along with its architecture. **(06 Marks)**
   b. Explain the characteristics of virtualized environment. **(06 Marks)**
   c. Briefly explain the different hardware virtualization techniques. **(04 Marks)**

Module-2

3 a. Briefly explain the different types of clouds. **(08 Marks)**
   b. With a neat diagram, explain the Infrastructure as a Service (IaaS) reference implementation. **(08 Marks)**

OR

4 a. Explain any two services hosted inside the Aneka container. **(08 Marks)**
   b. With a neat diagram, explain the Cloud Computing Architecture. **(08 Marks)**

Module-3

5 a. What is Task Programming Model? With a neat diagram, explain the task programming model scenario. **(08 Marks)**
   b. What is workflow? Explain the workflow technologies for designing and executing workflow based applications. **(08 Marks)**

OR

6 a. Explain MPI reference scenario. Discuss the MPI program structure, with neat diagram. **(10 Marks)**
   b. Explain domain decomposition and functional decomposition techniques for parallel computation. **(06 Marks)**

Module-4

7 a. Write short notes on
      i) Google File System (GFS)
      ii) Apache Cassandra
      iii) Amazon Simple Storage Service (S3) **(09 Marks)**
   b. With a neat diagram, explain Amazon dynamo Architecture. **(07 Marks)**

OR

8 a. Explain MapReduce programming model using MapReduce computation workflow.
(10 Marks)

   b. With a neat diagram, explain Aneka MapReduce Data file format.
(06 Marks)

Module-5

9 a. With a neat diagram, explain the Google AppEngine Platform Architecture.
(10 Marks)

   b. Explain the following :
   i) Dropbox   ii) Animoto.
(06 Marks)

OR

10 a. With a neat diagram, Explain the core service of windows Azure platform used for building scalable applications.
(12 Marks)

   b. Explain CRM and ERP applications in the cloud.
(04 Marks)

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