USN ☐☐☐☐☐☐☐☐☐☐

Seventh Semester B.E. Degree Examination, June/July 2019
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. Describe cloud computing reference model. List any four characteristics and benefits of cloud computing. **(08 Marks)**
   b. Describe the three major milestones which have led to cloud computing. **(06 Marks)**
   c. Define service oriented computing and utility oriented computing. **(02 Marks)**

OR

2 a. What is virtualization? What are the characteristics of virtualized environments? **(08 Marks)**
   b. What is an Hypervisor? Explain how hardware virtualization can be achieved. **(08 Marks)**

Module-2

3 a. Classify the service offered by cloud computing. Explain any one of the service in detail. **(08 Marks)**
   b. With a neat diagram, describe the private cloud hardware and software stack. List the advantages of private cloud computing infrastructure. **(08 Marks)**

OR

4 a. Describe Aneka container. Explain briefly the three service offered by the Aneka container. **(08 Marks)**
   b. Describe the Aneka service model with a neat diagram of service life cycle. **(08 Marks)**

Module-3

5 a. Describe the relationship between a process and a thread. **(08 Marks)**
   b. Explain with an example, Domain Decomposition. Write Aneka code to create matrix product class. **(08 Marks)**

OR

6 a. What is task computing? Describe parameter sweep application with an example. **(10 Marks)**
   b. List and explain Aneka ready – to – use task libraries. **(06 Marks)**

Module-4

7 a. Define Data Intensive computing. List any six open challenges in Data Intensive computing. **(08 Marks)**
   b. Bring out the salient features of Map Reduce programming model with a neat diagram of Map Reduce compworkflow. **(08 Marks)**

OR

8 a. Explain the Google Big Table Architecture. **(08 Marks)**
   b. List and explain the parameters that can be controlled during execution of Aneka mapReduce Application. **(08 Marks)**

Module-5

9 a. Describe any four popular cloud computing products. Indicate their service type. **(08 Marks)**
   b. Describe in detail the "Simple Storage Service" offered by Amazon S3. **(08 Marks)**

OR

10 a. Explain online health monitoring system hosted in cloud. **(08 Marks)**
   b. What are dropbox and icloud? Which kind of problems do they solve by using cloud technologies? **(08 Marks)**

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