CBCS SCHEME

USN | | | | | | | | | | 18CS643

Sixth Semester B.E. Degree Examination, June/July 2024
Cloud Computing and Its Applications

Time: 3 hrs.   Max. Marks: 100

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

Module-1

1 a. Explain bird's view of cloud computing with a neat diagram. **(06 Marks)**
   b. What are the characteristics and benefits of cloud computing with respect to CSC and CSP? **(06 Marks)**
   c. Mention and explain cloud services provided by 4 different computing platforms. **(08 Marks)**

OR

2 a. With neat diagram, explain taxonomy of virtualization techniques. **(08 Marks)**
   b. With neat diagram, explain Microsoft Hyper V architecture. **(08 Marks)**
   c. Explain infrastructure management in cloud computing with respect to Hyper V. **(04 Marks)**

Module-2

3 a. Explain IaaS reference implementation with a neat diagram. **(08 Marks)**
   b. Explain options to implement private clouds with a neat diagram. **(08 Marks)**
   c. Who are the candidate rectors for community cloud? Explain how they are related to cloud. **(04 Marks)**

OR

4 a. Explain Aneka Framework overview with a neat diagram. **(10 Marks)**
   b. Explain logical organization of Aneka clouds with a neat diagram. **(10 Marks)**

Module-3

5 a. What is domain decomposition? Explain domain decomposition technique for parallel computation by taking matrix multiplication example in detail. **(10 Marks)**
   b. What is context switching? Explain the relationship between thread and processes with a neat diagram. **(10 Marks)**

OR

6 a. List the frameworks used to support the execution of task-based applications. Explain in detail. **(08 Marks)**
   b. With a neat diagram explain abstract model of a workflow system. Briefly explain technologies used for designing workflow based applications. **(08 Marks)**
   c. Mention and explain different types of parameters specified in parameter sweep applications. **(04 Marks)**

Module-4

7 a. What is the role of Data grid in the evolution of data intensive computing? Explain with reference scenario. **(10 Marks)**
   b. Explain how below mentioned file systems provide performance and storage for clouds:
      i) Lustre ii) GPFS (iii) GFS (iv) Sector (v) Amazon S3 **(10 Marks)**

OR

8	a.	With neat diagram explain Google MapReduce infrastructure overview.	(08 Marks)
	b.	Describe the alternatives to MapReduce.	(06 Marks)
	c.	With neat diagram explain Aneka MapReduce infrastructure.	(06 Marks)

Module-5

9	a.	Discuss services used to develop applications in Google AppEngine.	(10 Marks)
	b.	Explain Microsoft Azure platform architecture with a neat diagram.	(10 Marks)

OR

10	a.	Describe how cloud computing can be used to analyze data for cancer diagnostics using gene expression with a neat diagram.	(10 Marks)
	b.	Describe EyeOS architecture with neat diagram.	(10 Marks)

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