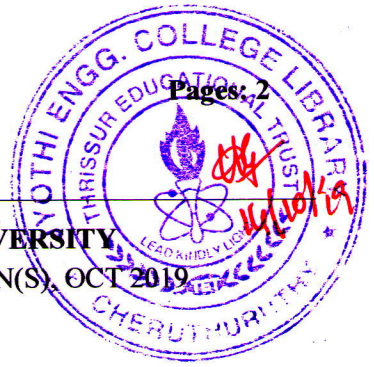


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Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
EIGHTH SEMESTER B.TECH DEGREE EXAMINATION(S), OCT 2019

Course Code: CS468

Course Name: CLOUD COMPUTING

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 4 marks.

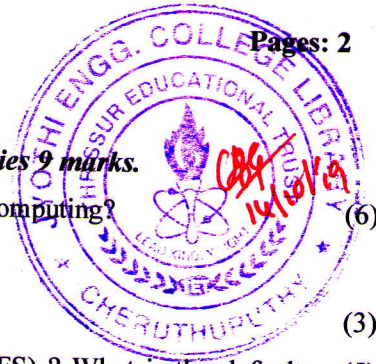
Marks

- | | | |
|----|---|-----|
| 1 | What is cloud computing? What are the key features of a cloud system?. | (4) |
| 2 | How hybrid cloud helps in the growth of your business? | (4) |
| 3 | How various virtualization techniques helped in the growth of cloud computing paradigm? | (4) |
| 4 | How a virtual machine is created and managed? | (4) |
| 5 | Compare MapReduce and iterative MapReduce | (4) |
| 6 | What is the function of a tablet server in big table? | (4) |
| 7 | What are the major challenges in implementing IaaS security? | (4) |
| 8 | List the major components of data governance framework. | (4) |
| 9 | How better project management can be done with the help of online project management applications? Give an example. | (4) |
| 10 | With the help of Google Docs, discuss collaborating on word processing | (4) |

PART B

Answer any two full questions, each carries 9 marks.

- | | | |
|----|--|-----|
| 11 | a) How dynamic binary translation improves the performance of Instruction Set Architecture (ISA) virtualization compared to code interpretation? | (5) |
| | b) Illustrate with suitable example how memory virtualization is achieved. | (4) |
| 12 | a) State the significance of IaaS service model with suitable cloud services. | (3) |
| | b) How a public cloud differs from private cloud? Give examples for both. | (3) |
| | c) With a neat diagram discuss the layered architectural design of cloud platform for IaaS, PaaS, and SaaS. | (3) |
| 13 | a) How a process virtual machine is implemented? | (5) |
| | b) Compare Grid, Cluster and Cloud Computing paradigms. | (4) |

**PART C**

Answer any two full questions, each carries 9 marks.

- 14 a) Explain various resource provisioning policies in cloud computing? (6)
- b) How Amazon EC2 provides load balancing? (3)
- 15 a) How chunk size is chosen in Google File System (GFS) ? What is the default chunk size in Google File System and in Hadoop Distributed File System (HDFS) ? Compare GFS and HDFS. (5)
- b) Analyze how Big Table supports data scaling? (4)
- 16 a) Discuss about Google App Engine with the help of suitable diagram. (4)
- b) Illustrate how the dataflow in MapReduce differs in single reduce task, multiple reduce task, and no reduce task. (5)

PART D

Answer any two full questions, each carries 12 marks.

- 17 a) How the phases of secure software development life cycle (secSDLC) ensure that framework modules are thoroughly tested for security issues before implementation? (6)
- b) Analyse how a proper security architecture design helps to test the security of applications and systems. (6)
- 18 a) Define cloud service. How cloud services help you to organize your activities in a family by online calendar application? Analyze the opportunities for collaboration with Google Calendar. (6)
- b) List at least four main benefits of online event management. Explain how these benefits are offered by an online cloud service by citing any popular online event management application. (6)
- 19 a) How an online database works? Write any two online database services. (6)
- b) How application security is offered in software-as-a-service model? Discuss with respect to an online database service. (6)
