

APJ ABDULKALAM TECHNOLOGICAL UNIVERSITY  
08 PALAKKAD CLUSTER

Q. P. Code: CS0822252A-I

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Name .....

Reg. No. ....



SECOND SEMESTER M.TECH. DEGREE EXAMINATION JULY 2022

Branch: Computer Science and Engineering

Specialization: Computer Science and Engineering

08CS6052(A) CLOUD COMPUTING

Time: 3 hours

Max. Marks: 60

Answer all six questions.

Modules 1 to 6: Part 'a' of each question is compulsory and answer either part 'b' or part 'c' of each question.

Q.no.	Module 1	Marks
1.a	Give an application of cloud bursting.	3
	<b>Answer b or c</b>	
b	With the help of a reference architecture analyse the roles of various actors in a cloud architecture.	6
c	Differentiate between SaaS, PaaS and IaaS	6
Q.no.	Module 2	Marks
2.a	What type of paging technology would one use for memory virtualization?	3
	<b>Answer b or c</b>	
b	Give the applications of following tools: (i)OpenVZ (ii)Xen (iii)Vmware ESX	6
c	Explain about levels of Virtualization. Which level of virtualization is suited for hosting applications? Substantiate your answer.	6
Q.no.	Module 3	Marks
3.a	Explain the important resource provisioning schemes in cloud.	3
	<b>Answer b or c</b>	
b	Explain a generic cloud architecture with respect to layering of services, security, shrinking/leasing of resources.	6
c	Explain the six open challenges in cloud architecture development.	6
Q.no.	Module 4	Marks
4.a	Compare and contrast important data analysis languages.	3

**Answer b or c**

- b** Explain twister as an iterative map-reduce framework. **6**
- c** Explain how a map-reduce job is run by a Hadoop cluster and explain the components involved. **6**

<b>Q.no.</b>	<b>Module 5</b>	<b>Marks</b>
<b>5.a</b>	With illustration explain GAE as a PAAS.	<b>4</b>

**Answer b or c**

- b** Explain the architecture of Google File system (GFS) **8**
- c** Write notes on Amazon EC2, Amazon S3 and Amazon EBS with respect to programming support and architecture. **8**

<b>Q.no.</b>	<b>Module 6</b>	<b>Marks</b>
<b>6.a</b>	Write notes on virtual machine security.	<b>4</b>

**Answer b or c**

- b** Explain the important baseline security measures for SaaS. **8**
- c** Write notes on Security Architecture Design, Security Monitoring and Application Security in Cloud. **8**