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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
07 THRISSUR CLUSTER

SECOND SEMESTER M.TECH. DEGREE EXAMINATION APRIL 2018

Computer Science and Engineering

Computer Science and Engineering

07CS6114

CLOUD COMPUTING

Time : 3 hours

Max.Marks: 60

Answer all six questions. Part 'a' of each question is compulsory.

Answer either part 'b' or part 'c' of each question

Q.no.	Module 1	Marks
1a	Discuss about the evolution of cloud computing?	4
	Answer b or c	
b	An increasing number of organizations in industry and business sectors is planning to adopt cloud systems. Suggest some cloud models they can adopt highlighting the characteristics suiting the different business and industrial purposes.	5
c	The Research Compute Cloud is a private cloud of IBM that interconnects the computing and IT resources at eight IBM Research centres scattered through United states. What could be the cloud service model used there? Justify.	5
Q.no.	Module 2	Marks
2a	Give different classifications of virtualization.	4
	Answer b or c	
b	Just as there is process perspective and system perspective of machines, there are different levels of virtual machines. Illustrate the taxonomy of virtual machines with example.	5
c	To support virtualization, processors such as X86 employ special running modes and instructions. How far this support can improve performance? Give your view.	5
Q.no.	Module 3	Marks
3a	Elaborate on the architectural design challenges in cloud	4
	Answer b or c	
b	The cloud architectural design was proposed considering the security, layers of	5

cloud and market –oriented resource allocation. Suggest the architectural solutions for security, layers of cloud and market –oriented resource allocation.

- c** A company plans to implement private cloud for better utilization of resources. Point out different open source solutions available. Give implementation details. **5**

Q.no.	Module 4	Marks
4a	Differentiate between single node and multi node hadoop clusters	4

Answer b or c

- b** A web development company plans to migrate to cloud based services utilizing some of the leading PAAS services. Propose some of the tools and their features which this company can adopt. **5**
- c** A software framework is required that supports parallel and distributed computing to quickly find out the number of persons who have visited distinct web pages from a very large web log. Point out the programming paradigm that can solve this problem. **5**

Q.no.	Module 5	Marks
5a	Discuss about implementing application security.	5

Answer b or c

- b** Virtualisation and cloud computing can help companies by breaking the physical bonds between an IT infrastructure and its users, but heightened security threats must be overcome in order to benefit fully from this new computing technology. Propose a suitable security architecture design for this scenario **7**
- c** Implementing security as service in cloud is necessary to overcome cloud security challenges. Give your view. **7**

Q.no.	Module 6	Marks
6a	Discuss in brief about calendars	5

Answer b or c

- b** The process of managing a project gets even more complex when participants are in different locations. How to keep track of the tasks that need to be completed by someone in your Denver branch when you're in New York? **7**
- c** Most people today keep their lists of friends, family and business contacts in some sort of computer based address book. The problem with this is that what to do when you need to look up an address or phone number and you're not around the particular computer. Implement this scenario with the help of cloud-based tools. **7**