

Total No. of Questions: 6

Total No. of Printed Pages:3

Enrollment No.....



Faculty of Engineering
End Sem (Odd) Examination Dec-2018
CA5EL29 Cloud Computing

Programme: MCA

Branch/Specialisation: Computer
Application

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. An organization wants to provide Software as a Service to customers globally on different client devices. Which cloud characteristic enables the delivery of such a service? **1**
- (a) Resource pooling (b) Rapid elasticity
(c) Broad network access (d) On-demand self-service
- ii. Which technique enables making physical resources appear as logical resources? **1**
- (a) Grid Computing (b) Utility computing
(c) Virtualization (d) Self provisioning
- iii. Which resources does the consumer have control over in Infrastructure as a Service? **1**
- (a) Application only
(b) Application, database, and programming framework
(c) OS, compute, storage, and network
(d) All resources belong to the consumer
- iv. Which tool helps to create Cloud services? **1**
- (a) Service management tool (b) Service creation tool
(c) Service monitoring tool (d) Service planning tool
- v. Which component of a Big Data analytics solution provides a parallel programming framework for processing large data sets? **1**
- (a) HDFS (b) NoSQL (c) OneFS (d) MapReduce

P.T.O.

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- vi. Which is a benefit of network virtualization? **1**
(a) Enhanced storm control
(b) Increased resource acquisition
(c) Improved manageability
(d) Better policy control
- vii. Which goal of information security ensures that authorized users have reliable and timely access to resources? **1**
(a) Availability (b) Confidentiality
(c) Integrity (d) Auditing
- viii. Which type of attack prevents legitimate users from accessing resources? **1**
(a) Account Hacking (b) Media Theft
(c) Spoofing DR Site Identity (d) Denial of Services
- ix. Azure Storage plays the same role in Azure that _____ plays in Amazon Web Services. **1**
(a) S3 (b) EC2 (c) EC3 (d) All of these
- x. Which of the following are true about Hadoop? **1**
(a) Open Source
(b) Distributed Processing Framework
(c) Distributed Storage Framework
(d) All of these
- Q.2 Attempt any two: **5**
- i. What are the high level capabilities of any cloud? **5**
- ii. Explain all the features that would help to bring an agility and transparency along with an increase in the utilization of the existing resources at the datacentre of any customer. **5**
- iii. What is the most important advantage of cloud technologies for social networking applications? **5**
- Q.3 Attempt any two: **5**
- i. What is cloud service management? Explain and enlist any five key cloud solution characteristics? **5**
- ii. What are the fundamental components introduced in the Cloud Reference Model? **5**

- iii. Explain Cloud Ecosystem with the help of a diagram? **5**
- Q.4 Attempt any two: **5**
- i. What do you mean by cloud asset management? What are the different factors that help to develop the cloud asset management strategy? **5**
- ii. What is virtualization? Explain server virtualization? **5**
- iii. Define hypervisor? Explain working of hypervisor management software? **5**
- Q.5 Attempt any two: **5**
- i. Explain cloud security services w.r.t.: Authentication, Authorization, Auditing & Accountability. **5**
- ii. Enlist and explain all cloud computing security challenges? **5**
- iii. Explain any five cloud security design principles? **5**
- Q.6 Attempt any two: **5**
- i. Draw and explain global view of market-oriented cloud computing? **5**
- ii. How characterization of federated clouds /inter cloud takes place? Only draw cloud federation reference stack? **5**
- iii. Explain Google App Engine w.r.t. : Storage and Compute Services. **5**

Marking Scheme
CA5EL29 Cloud Computing

Q.1	i. An organization wants to provide Software as a Service to customers globally on different client devices. Which cloud characteristic enables the delivery of such a service? (c) Broad network access	1
	ii. Which technique enables making physical resources appear as logical resources? (c) Virtualization	1
	iii. Which resources does the consumer have control over in Infrastructure as a Service? (b) Application, database, and programming framework	1
	iv. Which tool helps to create Cloud services? (a) Service management tool	1
	v. Which component of a Big Data analytics solution provides a parallel programming framework for processing large data sets? (d) MapReduce	1
	vi. Which is a benefit of network virtualization? (c) Improved manageability	1
	vii. Which goal of information security ensures that authorized users have reliable and timely access to resources? (a) Availability	1
	viii. Which type of attack prevents legitimate users from accessing resources? (d) Denial of Services	1
	ix. Azure Storage plays the same role in Azure that _____ plays in Amazon Web Services. (a) S3	1
	x. Which of the following are true about Hadoop? (d) All of these	1
Q.2	Attempt any two:	
	i. High level capabilities of any cloud Any five points 1 mark for each	5 (1 mark * 5)
	ii. features that would help to bring an agility and transparency along with an increase in the utilization of the existing resources at the datacentre of any customer. Any five points 1 mark for each	5 (1 mark * 5)

iii.	Advantage of cloud technologies for social networking applications. Any five points 1 mark for each	5 (1 mark * 5)
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Q.3	Attempt any two:		
	i. Cloud service management Key cloud solution characteristics	1 mark 4 marks	5
	ii. Fundamental components introduced in the Cloud Reference Model.		5
	iii. Cloud Ecosystem Diagram of ecosystem	4 marks 1 mark	5

Q.4	Attempt any two:		
	i. Cloud asset management Factors that help to develop cloud asset management strategy	1 mark 4 marks	5
	ii. Virtualization Server virtualization	1 mark 4 marks	5
	iii. Hypervisor Hypervisor management software	1 mark 4 marks	5

Q.5	Attempt any two:		
	i. Cloud security services		5
	ii. Cloud computing security challenges		5
	iii. Cloud security design principles. Any five points 1 mark for each		5 (1 mark * 5)

Q.6	Attempt any two:		
	i. global view of market-oriented cloud computing Diagram of market-oriented cloud computing	4 marks 1 mark	5
	ii. Characterization of federated clouds /inter cloud takes place Diagram of cloud federation reference stack	4 marks 1 mark	5
	iii. Google App Engine Storage Google App Engine Compute Services	2.5 marks 2.5 marks	5
