

Enrollment No.....



Faculty of Engineering  
End Sem (Even) Examination May-2019  
IT3CO13 Cloud Computing

Programme: B.Tech.

Branch/Specialisation: IT

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. Which of the following cloud concept is related to pooling and sharing of resources? 1  
(a) Polymorphism (b) Abstraction  
(c) Virtualization (d) None of these
  - ii. A \_\_\_\_\_ is a cloud computing service that is both hardware and software. 1  
(a) Service (b) Platform (c) Model (d) All of these
  - iii. Which of the following is not the area of cloud service broker? 1  
(a) Aggregation (b) Bartering  
(c) Intermediation (d) Infrastructure management
  - iv. In a \_\_\_\_\_ scheme, the VM is installed as a Type 1 Hypervisor directly onto the hardware. 1  
(a) Paravirtualization (b) Full virtualization  
(c) Emulation (d) None of these
  - v. Which of the following services that need to be negotiated in Service Level Agreements? 1  
(a) Logging (b) Auditing  
(c) Regulatory compliance (d) All of these
  - vi. SaaS supports multiple users and provides a shared data model through \_\_\_\_\_ model. 1  
(a) Single-tenancy (b) Multi-tenancy  
(c) Multiple-instance (d) All of these

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- vii. Which of the following service provider provides the least amount of built in security? **1**  
 (a) SaaS (b) PaaS (c) IaaS (d) All of these
- viii. Point out the wrong statement: **1**  
 (a) You can use proxy and brokerage services to separate clients from direct access to shared cloud storage  
 (b) Any distributed application has a much greater attack surface than an application that is closely held on a Local Area Network  
 (c) Cloud computing don't have vulnerabilities associated with Internet applications  
 (d) All of these
- ix. Amazon Elastic Compute Cloud (EC2) is primarily considered which type of cloud computing model? **1**  
 (a) Software as a service (SaaS)  
 (b) Platform as a service (PaaS)  
 (c) Infrastructure as a service (IaaS)  
 (d) None of these
- x. Which of these options is not a PaaS offering? **1**  
 (a) IBM App Mix (b) Azure App Service  
 (c) AWS Elastic Beanstalk (d) Google App Engine
- Q.2 i. Define cloud computing and its characteristics as per NIST. **3**  
 ii. How can you deploy cloud computing with different models? Explain using diagram. **7**
- OR iii. Draw cloud reference architecture along with its components. **7**
- Q.3 i. Mention what is Hypervisor in cloud computing also explain its types? **3**  
 ii. Compare and contrast the features of Capex and Opex model in cloud computing. **7**
- OR iii. What is the usage of virtualization platform in implementing cloud? Example full virtualization with example. **7**

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- Q.4 i. Before going for cloud computing platform what are the essential things to be taken into consideration by users? **3**  
 ii. Explain need of backup service and how backups are maintained in cloud system. **7**
- OR iii. Explain relevance of SLA using SLA life cycle in cloud environment. **7**
- Q.5 i. Explain how vulnerabilities assessment is done in cloud system. **4**  
 ii. What are the security aspects provided with cloud system? **6**
- OR iii. Explain role of identity management and access control mechanism in cloud. **6**
- Q.6 Write short note on any two:  
 i. Amazon web service cloud platform **5**  
 ii. Google App Engine **5**  
 iii. Role of Xen Hypervisor **5**

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**Marking Scheme**  
**IT3CO13 Cloud Computing**

Q.1	i.	Which of the following cloud concept is related to pooling and sharing of resources? (c) Virtualization	<b>1</b>
	ii.	A _____ is a cloud computing service that is both hardware and software. (b) Platform	<b>1</b>
	iii.	Which of the following is not the area of cloud service broker? (d) Infrastructure management	<b>1</b>
	iv.	In a _____ scheme, the VM is installed as a Type 1 Hypervisor directly onto the hardware. (b) Full virtualization	<b>1</b>
	v.	Which of the following services that need to be negotiated in Service Level Agreements? (d) All of these	<b>1</b>
	vi.	SaaS supports multiple users and provides a shared data model through _____ model. (b) Multi-tenancy	<b>1</b>
	vii.	Which of the following service provider provides the least amount of built in security? (c) IaaS	<b>1</b>
	viii.	Point out the wrong statement: (c) Cloud computing don't have vulnerabilities associated with Internet applications	<b>1</b>
	ix.	Amazon Elastic Compute Cloud (EC2) is primarily considered which type of cloud computing model? (c) Infrastructure as a service (IaaS)	<b>1</b>
	x.	Which of these options is not a PaaS offering? (a) IBM App Mix	<b>1</b>

Q.2	i.	Definition cloud computing	0.5 mark	<b>3</b>
		Characteristics 0.5 marks (0.5 mark *5)	2.5 marks	
	ii.	Deploy cloud computing with different models		<b>7</b>
		Deployment of Public cloud	2 marks	
		Deployment of Private cloud	2 marks	

OR	iii.	Deployment of Hybrid cloud	2 marks	<b>7</b>
		Diagram is of	1 Mark	
		Diagram cloud reference architecture Components	5 marks 2 marks	
Q.3	i.	Hypervisor	1 mark	<b>3</b>
		Types	2 marks	
	ii.	Capex model parameters in cloud computing	3.5 marks	<b>7</b>
OR	iii.	Opex Model parameters in cloud computing	3.5 marks	<b>7</b>
		Usage of virtualization platform	4 marks	
		Full Virtualization	2 marks	
		Example	1 mark	
Q.4	i.	Essential things to be taken for Cloud computing platform		<b>3</b>
	ii.	Need of backup service in cloud system	3 marks	<b>7</b>
		Backup strategies in cloud	4 marks	
OR	iii.	SLA relevance	3 marks	<b>7</b>
		SLA Life cycle	4 marks	
Q.5	i.	Vulnerabilities assessment		<b>4</b>
	ii.	Security aspects provided with cloud system		<b>6</b>
OR	iii.	Role of Identity Management	3 marks	<b>6</b>
		Role of Access Control Mechanism	3 marks	
Q.6		Write short note on any two:		
	i.	Amazon web service cloud platform		<b>5</b>
	ii.	Google App Engine		<b>5</b>
	iii.	Role of Xen Hypervisor		<b>5</b>

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