Total No. of Questions: 6 *Total No. of Printed Pages:2*

Enrollment No.....

Faculty of Engineering
End Sem Examination May-2023
CS3EL12 / CS3EL10 Cloud Computing

Programme: B.Tech. Branch/Specialisation: CSE All

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. Assume suitable data if necessary. Notations and symbols have their usual meaning.

Q.1 i. A _____cloud combines multiple clouds where those clouds retain their unique identities but are bound together as a unit. **1**
(a) Public (b) Private (c) Hybrid (d) Community

ii. Which of the following are the features of cloud computing? **1**
(a) Security (b) Availability
(c) Large Network Access (d) All of these

iii. Which of the following is the most refined and restrictive service model? **1**
(a) PaaS (b) IaaS (c) SaaS (d) None of these

iv. How can you monitor network traffic in your VPC? **1**
(a) Amazon VPC feature (b) Amazon VPC Flow-Logs feature
(c) Amazon VPC frames (d) Amazon VPC fraction flow-function

v. Cloud computing is a concept that involves pooling physical resources and offering them as which sort of resource? **1**
(a) Cloud (b) Real (c) Virtual (d) None of these

vi. Which of the following model consists of the service that you can access on a cloud computing platform? **1**
(a) Deployment (b) Service
(c) Application (d) None of these

vii. What is the most important concern of cloud computing? **1**
(a) Cost (b) Space (c) Security (d) Platform

viii. Which of the following is key mechanism for protecting data? **1**
(a) Access control (b) Auditing
(c) Authentication (d) All of these

P.T.O.

ix. Which of the following uses an authentication device? **1**
(a) Amazon Elastic MapReduce (b) Amazon Mechanical Turk
(c) Amazon DevPay (d) Multi-Factor Authentication

x. Which of the following allows you to create instances of the MySQL database to support your Web sites? **1**
(a) Amazon Elastic Compute Cloud
(b) Amazon Simple Queue Service
(c) Amazon Relational Database Service
(d) Amazon Simple Storage System

Q.2 i. Define Cloud computing with its different deployment models with example. **4**
ii. Write application of cloud computing in different areas. **6**
OR iii. How protein structure prediction can be done in cloud computing **6**

Q.3 i. Differentiate between full and para virtualization. **4**
ii. What is the use of hypervisors in achieving virtualization? **6**
OR iii. Define the following: **6**
(a) Cloud broker (b) Cloud interoperability
(c) Capex & opex

Q.4 i. Explain how user can take advantage of SaaS service available in cloud computing with example. **3**
ii. What is the role of SLA in cloud computing? Explain with its Lifecyle. **7**
OR iii. Explain cloud architecture using SaaS, IaaS, PaaS & other services. **7**

Q.5 i. What do you understand by vulnerability in any network? **4**
ii. Explain in detail what is security and trust issues in cloud computing and how to resolve it? **6**
OR iii. How to handle security in virtual environment? **6**

Q.6 Attempt any two:
i. What is Xen hypervisor? What are its uses? **5**
ii. What are the services provided by AWS? **5**
iii. What are different cloud application development platforms available? Explain with example. **5**

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Marking Scheme
CS3EL12 / CS3EL10 - Cloud Computing

Q.1	i)	c) Hybrid	**1**
	ii)	d) All of the mentioned	**1**
	iii)	a) PaaS	**1**
	iv)	b) Amazon VPC Flow-Logs feature	**1**
	v)	c) virtual	**1**
	vi)	b) Service	**1**
	vii)	c) security	**1**
	viii)	d) All	**1**
	ix)	d) Multi-Factor Authentication	**1**
	x)	c) Amazon Relational Database Service	**1**
Q.2	i.	Cloud computing definition -1 mark 3 deployment model -1 mark each	**4**
	ii.	6 applications in different areas – 1 mark each	**6**
OR	iii.	Protein structure prediction with algorithm– 4 marks diagram - 2 marks	**6**
Q.3	i.	At least 4 differences -1 mark each	**4**
	ii.	Role of hypervisor – 4mark diagram – 2mark	**6**
OR	iii.	cloud broker - 2marks cloud interoperability - 2marks capex & opex - 2marks	**6**
Q.4	i.	SaaS example from any cloud computing service available – 3marks	**3**
	ii.	SLA role- 3 marks, lifecycle – 4marks	**7**
OR	iii.	Cloud architecture- 4 marks, IaaS- 1 mark, PaaS-1 mark, SaaS-1 mark	**7**
Q.5	i.	Vulnerability definition -3 marks and example-1 mark	**4**
	ii.	Security issues -3marks, resolve- 3 marks	**6**
OR	iii.	Security – 3marks, virtual environment -3 marks	**6**

Q.6			
	i.	Define xen hypervisor with example -5marks	**5**
	ii.	AWS services (atleast 3 service)– 5marks	**5**
	iii.	Application development platforms – 5marks	**5**

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