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GIET UNIVERSITY, GUNUPUR – 765022

B. Tech (Eight Semester – Regular) Examinations, April– 2024

BPECS7013 – Cloud Security

(CSE)

Time: 3 hrs

Maximum: 70 Marks

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions)

(1 x 10 = 10 Marks)

Q.1. Answer **ALL** questions

		[CO#]	[PO#]
a. Which of the following is key mechanism for protecting data?		CO1	PO2
(i) Access control	(ii) Authentication		
(iii) Auditing	(iv) All of the mentioned		
b. Which of the following service provider provides the highest level of service ?		CO2	PO2
(i) SaaS	(ii) PaaS		
(iii) IaaS	(iv) All of the mentioned		
c. Which of the following is application and infrastructure management software for hybrid multi-clouds?		CO2	PO1
(i) VMware Hyperic	(ii) Webmetricss		
(iii) Univa-ud	(iv) Tapinsystems		
d. Which of the following is considered an essential element in cloud computing by CSA?		CO2	PO3
(i) Multi-tenancy	(ii) Identity and access management		
(iii) Virtualization	(iv) All of the mentioned		
e. Which of the following is a common means for losing encrypted data?		CO2	PO1
(i) lose the keys	(ii) lose the encryption standard		
(iii) lose the account	(iv) all of the mentioned		
f. Which of the following was one of the weaker aspects of early cloud computing service offerings?		CO2	PO1
(i) Logging	(ii) Integrity checking		
(iii) Consistency checking	(iv) None of the mentioned		
g. Which of the following is not considered an essential element in cloud computing by CSA?		CO3	PO3
(i) Multi-tenancy	(ii) Identity and access management		
(iii) Virtualization	(iv) All of the mentioned		
h. Which of the following is not a common means for losing encrypted data?		CO3	PO2
(i) lose the keys	(ii) lose the encryption standard		
(iii) lose the account	(iv) all of the mentioned		
i. Which of the following is vital process for protecting data?		CO4	PO1
(i) Access control	(ii) Authentication		
(iii) Auditing	(iv) All of the mentioned		
j. Which of the following services that need to be negotiated in Service Level Agreements?		CO3	PO1
(i) Logging	(ii) Regulatory compliance		
(iii) Auditing	(iv) All of the mentioned		

PART – B: (Short Answer Questions)**(2 x 10 = 20 Marks)**Q.2. Answer ALL questions

	[CO#]	[PO#]
a. Define the classes of message authentication function.	CO2	PO3
b. Discuss the meet in the middle attack?	CO1	PO2
c. Define ACID properties of transaction management?	CO1	PO1
d. Discuss any three hash algorithm.	CO3	PO2
e. Discuss any three features of IaaS.	CO4	PO1
f. Explain the importance of availability, reliability and performance of the cloud.	CO2	PO3
g. Discuss any four general issues in securities of cloud computing.	CO2	PO2
h. Describe federated cloud computing.	CO3	PO3
i. State any two benefits of Virtual Data Centre.	CO4	PO2
j. Discuss briefly about Virtual Machines?	CO3	PO1

PART – C: (Long Answer Questions)**(10 x 4 = 40 Marks)**Answer ALL questions

	Marks	[CO#]	[PO#]
3. a. Describe Important Cloud Platform Capabilities.	5	CO3	PO2
b. Explain the key management of public key encryption in detail?	5	CO4	PO2
(OR)			
c. Describe about RC4 algorithm.	5	CO1	PO1
d. Explain in detail ElGamal Public key cryptosystem.	5	CO2	PO1
4. a. Perform decryption and encryption using RSA algorithm with $p=3$, $q=11$, $e=7$ and $N=5$.	5	CO2	PO2
b. Explain the architecture of IP Security.	5	CO1	PO2
(OR)			
c. Explain the Formal Definition of Map Reduce with an example.	5	CO2	PO1
d. Explain the digital signature algorithm.	5	CO2	PO1
5. a. Discuss the peer inspections used in Quality improvements?	5	CO4	PO3
b. Explain the purpose of CRT.	5	CO3	PO4
(OR)			
c. Describe any two advantages and disadvantages of Virtualization.	5	CO4	PO2
d. Explain Cloud Computing Architecture.	5	CO3	PO3
6. a. Define cloud computing? Explain different types of clouds available.	5	CO4	PO2
b. Explain about Degrees of Parallelism.	5	CO3	PO1
(OR)			
c. Describe the various types of Service Level Agreement.	5	CO3	PO3
d. Explain Energy aware cloud computing with an example.	5	CO4	PO2

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