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Subject Code:- AMTCSE0111

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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

M.Tech

SEM: I - THEORY EXAMINATION (2022 - 2023)

Subject: Cloud Computing

Time: 3 Hours

Max. Marks: 70

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of **three Sections -A, B, & C**. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.
2. Maximum marks for each question are indicated on right -hand side of each question.
3. Illustrate your answers with neat sketches wherever necessary.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.
6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION A

15

1. Attempt all parts:-

- 1-a. Cloud computing is a _____ system and it is necessarily unidirectional in nature. (CO1) 1
- (a) stateless
(b) stateful
(c) reliable
(d) all of the mentioned
- 1-b. Point out the correct statement. (CO2) 1
- (a) A client can request access to a cloud service from any location
(b) A cloud has multiple application instances and directs requests to an instance based on conditions
(c) Computers can be partitioned into a set of virtual machines with each machine being assigned a workload
(d) All of the mentioned
- 1-c. _____ describes a cloud service that can only be accessed by a limited amount of people. (CO3) 1

	(a) Data center	
	(b) Private cloud	
	(c) Virtualization	
	(d) Public cloud	
1-d.	Fabrication security attack is an attack on (CO4)	1
	(a) Confidentiality	
	(b) Availability	
	(c) Integrity	
	(d) Authenticity	
1-e.	OpenStack is a (CO5)	1
	(a) Software platform	
	(b) Data center	
	(c) Type of cloud models	
	(d) All of the mentioned	

2. Attempt all parts:-

2.a.	Define utility computing. (CO1)	2
2.b.	List various resource provisioning methods. (CO2)	2
2.c.	Name the actors in NIST reference architecture. (CO3)	2
2.d.	List inter- cloud challenges. (CO4)	2
2.e.	List the level of federation in cloud computing. (CO5)	2

SECTION B

20

3. Answer any five of the following:-

3-a.	Differentiate between Cloud computing and Mobile computing. (CO1)	4
3-b.	What is the platform as a service? (CO2)	4
3-c.	Define SOA. (CO3)	4
3-d.	What is virtualization? (CO4)	4
3.e.	Differentiate between public and private cloud. (CO4)	4
3.f.	Express the objectives of cloud security governance. (CO5)	4
3.g.	Review the technologies that OpenStack offers and build upon. (CO5)	4

SECTION C

35

4. Answer any one of the following:-

4-a.	Differentiate between data centers and cloud data centers. (CO1)	7
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4-b. Describe the types of cloud with advantages and disadvantages. (CO1) 7

5. Answer any one of the following:-

5-a. Explain cluster and grid computing with example. (CO2) 7

5-b. (i) Mention the features of cloud computing (ii) Identify and write the challenges faced while implementing cloud computing. (CO2) 7

6. Answer any one of the following:-

6-a. Demonstrate various stages of Layered architecture of cloud computing. (CO3) 7

6-b. Discuss and differentiate S3 and EBS. (CO3) 7

7. Answer any one of the following:-

7-a. "Global Exchange of Cloud Resources solves the problem of resource availability", justify this. (CO4) 7

7-b. Explain inter cloud resource management with all of its elements. (CO4) 7

8. Answer any one of the following:-

8-a. Explain the services offered by 'Eucalyptus' and its way of offering. (CO5) 7

8-b. Discuss following components of OpenStack: Nova, Neutron, Swift, Keystone. (CO5) 7