NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute)
Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow
M.Tech
SEM: I - THEORY EXAMINATION (2021 - 2022)
Subject: Cloud Computing

Time: 03:00 Hours   Max. Marks: 70

General Instructions:

1. All questions are compulsory. It comprises of three Sections A, B and C.

- Section A - Question No- 1 is objective type question carrying 1 mark each & Question No- 2 is very short type questions carrying 2 marks each.
- Section B - Question No- 3 is Long answer type - I questions carrying 4 marks each.
- Section C - Question No- 4 to 8 are Long answer type - II questions carrying 7 marks each.
- No sheet should be left blank. Any written material after a Blank sheet will not be evaluated/checked.

<div align="center">SECTION A   15</div>

1. Attempt all parts:-

1-a.	Point out the correct statement. (CO1)	1

      1. The use of the word "cloud" makes reference to the two essential concepts

      2. Cloud computing abstracts systems by pooling and sharing resources

      3. cloud computing is nothing more than the Internet

      4. All of the mentioned

1-b.   Which of the following type of virtualization is also characteristic of cloud computing? (CO2)   1

      1. Storage

      2. Application

      3. CPU

      4. All of the mentioned

1-c.   Access to a Cloud environment always costs more money compared to a traditional desktop   1
environment. (CO3)

      1.   True

      2.   False

1-d.   Which of the following are a common means for losing encrypted data? (CO4)   1

      1. lose the keys

      2. lose the encryption standard

      3. lose the account

      4. all of the mentioned

1-e.   OpenStack is mostly deployed as (CO5)   1

      1. infrastructure-as-a-service

      2. Platform-as-a-service

      3. Software-as-a-service

      4. None of the mentioned

2. Attempt all parts:-

2-a.   Define utility computing. (CO1)   2

2-b.   Discuss various levels of virtualization? (CO2)   2

2-c.	Define SLA. (CO3)	2
2	List inter- cloud challenges. (CO4)	2
2-e.	Define Endpoint in OpenStack services.(CO5)	2

<div align="center">SECTION B   20</div>

3. Answer any <u>five</u> of the following:-

3-a.	What is on-demand functionality? How is it provided in cloud computing? (CO1)	4
3-b.	What are the different layers in cloud computing? Explain working of them. (CO1)	4
3-c.	What security issues affect cloud computing? (CO2)	4
3-d.	Write the purpose of virtual machine. (CO2)	4
3-e.	Confer need of Hybrid Cloud.(CO3)	4
3-f.	Write some benefits of IAM and list some tools that offer IAM. (CO4)	4
3-g.	Review the technologies that OpenStack offers and build upon. (CO5)	4

<div align="center">SECTION C   35</div>

4. Answer any <u>one</u> of the following:-

| 4-a. | Discriminate between cluster computing and grid computing. (CO1) | 7 |
| 4-b. | Discuss EC2 instances. (CO1) | 7 |

5. Answer any <u>one</u> of the following:-

| 5-a. | Enumerate the internet technologies, which enabled cloud as an evolutionary service. (CO2) | 7 |
| 5-b. | Describe in detail the load balancing techniques in cloud. (CO2) | 7 |

6. Answer any <u>one</u> of the following:-

| 6-a. | Elaborate various participants in NIST reference architecture of cloud computing. (CO3) | 7 |
| 6-b. | Demonstrate various stages of Layered architecture of cloud computing. (CO3) | 7 |

7. Answer any <u>one</u> of the following:-

| 7-a. | Explain following terms: Strategic Alignment , Value Delivery, Risk Mitigation, Sustained Performance (CO4) | 7 |
| 7-b. | Discuss SaaS security and practices that an organisation adopts for SaaS security. (CO4) | 7 |

8. Answer any <u>one</u> of the following:-

| 8-a. | Explain the way to which virtualization is helpful in delivering compute technologies in cloud computing. (CO5) | 7 |
| 8-b. | Write short note on following technologies: OpenStack, Amazon EC2 ,Google Compute Engine. (CO5) | 7 |