

# **MIT ACADEMY OF ENGINEERING**

**COURSE CODE: CS353T**

**25 SEPTEMBER 2023**

**TY BTECH SEMESTER-V 2019 REGULAR 2023-2024 EXAMINATION**

**DEPARTMENT OF COMPUTER ENGINEERING**

**MID SEMESTER EXAMINATION**

**CLOUD COMPUTING FOUNDATIONS**

**TIME : 2 HOUR**

**MAX MARKS : 50**

**TOTAL NO OF QUESTIONS: 04**

**TOTAL NO OF PRINTED PAGES: 2**

## **INSTRUCTIONS TO CANDIDATES:**

1. Assume suitable data wherever necessary
2. Non programmable scientific calculators are allowed
3. Black figures to the right indicate full marks

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|----------|---|------------|------------|-----------|
| <b>1</b> | <b>a)</b> Define Cloud Computing and explain the benefits of Cloud Computing  | <b>[6]</b> | <b>CO1</b> | <b>L2</b> |
|          | <b>b)</b> Explain various Cloud Computing deployment models   | <b>[6]</b> | <b>CO1</b> | <b>L2</b> |
| <b>2</b> | <b>a)</b> Explain which EC2 instance types will be useful for running the following applications <ol style="list-style-type: none"><li>1. Scientific modeling</li><li>2. Real time data analysis</li><li>3. Deep learning</li></ol> | <b>[3]</b> | <b>CO2</b> | <b>L3</b> |
|          | <b>b)</b> You want to deploy an application on EC2 instance. The application is using a proprietary tool which is having a hardware lock. Which EC2 instance tenancy will be suitable for this situation and why?                   | <b>[3]</b> | <b>CO2</b> | <b>L4</b> |

	c)	Which EC2 placement group will be used for running the following applications on EC2 instance? 1. High performance computing application 2. HDFS application 3. Highly available web application like Facebook	[3]	CO2	L3
	d)	What are spot instances? How spot instances are different from On-Demand instances?	[3]	CO2	L3
3	a)	Explain with suitable example, various components of an IAM Policy	[4]	CO5	L3
	b)	Explain with suitable example, various types of policies available in IAM for granting maximum permissions	[6]	CO5	L3
	c)	As a security specialist in AWS platform you have to decided whether to use IAM policy or IAM role for granting the permissions. Explain with suitable example when to use IAM policy and when to use IAM Role	[4]	CO5	L3
4	a)	Explain various storage classes available in Amazon S3	[6]	CO3	L3
	b)	Explain how Amazon S3 versioning is useful with suitable example.	[3]	CO3	L3
	c)	Your organization wants to transfer 10 TB of data to Amazon S3. As a storage specialist which S3 feature will you use so that the data transfer will be done in minimum amount of time?	[3]	CO3	L4