

# **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

- |          |                                                                                                                                                                                                                                     |            |            |           |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|-----------|
| <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 situationand why?                    | <b>[3]</b> | <b>CO2</b> | <b>L4</b> |

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