**20IT703/JO**

**Hall Ticket Number:**

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| **IV/IV B.Tech (Regular) DEGREE EXAMINATION** | | | | |
| **January, 2024** | | **Information Technology** | | |
| **Seventh Semester** | **Cloud Programming** | | | |
| **Time:** Three Hours | | | **Maximum:** 70 Marks | |
| ***Answer question 1 compulsory.*** | | | | **(14X1 = 14Marks)** |
| ***Answer one question from each unit.*** | | | | **(4X14=56 Marks)** |
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|  |  |  | CO | BL | M |
| 1 | a) | Describe the 5-4-3 Principles of Cloud Computing | CO 1 | L2 | 1M |
|  | b) | List the challenges of Cloud computing | CO 1 | L1 | 1M |
|  | c) | List some applications of cloud computing. | CO 1 | L1 | 1M |
|  | d) | Describe features of EC2 | CO 2 | L2 | 1M |
|  | e) | How can AWS SDK (Java) be used to manage EC2 instances? | CO 2 | L2 | 1M |
|  | f) | Describe the features of SQS | CO 2 | L2 | 1M |
|  | g) | Specify the command to create stream using CLI | CO 3 | L1 | 1M |
|  | h) | List the Advantages of Amazon S3 | CO 3 | L1 | 1M |
|  | i) | How versioning can be manged in S3? Explain. | CO 3 | L2 | 1M |
|  | j) | Specify the CLI command syntax to rename an S3 object? | CO 3 | L2 | 1M |
|  | k) | What is auto-scaling in the context of AWS, and why is it essential for maintaining the performance and availability of applications? | CO 4 | L3 | 1M |
|  | l) | Name some popular NoSQL databases offered by AWS, and explain their key characteristics. | CO 4 | L1 | 1M |
|  | m) | Describe the use of Amazon RDS | CO 4 | L2 | 1M |
|  | n) | Compare NoSQL database Vs RDS | CO 4 | L3 | 1M |
| **Unit-I** | | | | | |
| 2 |  | Explain in detail the anatomy of a typical Cloud environment. Describe various components, including infrastructure, virtualization, and management tools that make up a Cloud system. | CO 1 | L2 | 14M |
| **(OR)** | | | | | |
| 3 | a) | Define Cloud Computing. Compare and contrast the various Deployment models of Cloud Computing. | CO 1 | L3 | 8M |
|  | b) | Describe in detail about Migrating Applications to Cloud. | CO 1 | L2 | 6M |
| **Unit-II** | | | | | |
| 4 |  | Illustrate managing SQS using AWS Console and Java SDK. | CO 2 | L3 | 14M |
| **(OR)** | | | | | |
| 5 | a) | Explain Managing EC2 Using AWS CLI | CO 2 | L2 | 8M |
|  | b) | Explain Create, List delete and Importing of a key pair | CO 2 | L2 | 6M |
| **Unit-III** | | | | | |
| 6 | a) | Describe how S3 bucket can be managed with AWS Management Console. | CO 3 | L2 | 7M |
|  | b) | Describe the steps to host a website using AWS S3. | CO 3 | L2 | 7M |
| **(OR)** | | | | | |
| 7 |  | Explain the role of AWS SDK (Java) in working with Amazon Kinesis. Demonstrate with an example and discuss how it can be used to produce and consume data from Kinesis streams. | CO 3 | L2 | 14M |
| **Unit-IV** | | | | | |
| 8 |  | Illustrate the process of data migration from an on-premises database to Amazon RDS. What are the challenges and best practices in this migration? | CO 4 | L3 | 14M |
| **(OR)** | | | | | |
| 9 |  | Explain managing NoSQL database using AWS Console and Java SDK. | CO 4 | L2 | 14M |

