



VIT<sup>®</sup>

Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

REG.NO.:

SCHOOL OF ELECTRONICS ENGINEERING  
CONTINUOUS ASSESSMENT TEST - II  
FALL SEMESTER 2024-2025

SLOT: B2 + TB2

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |   |   |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|
| 4. | An organization wants to migrate an existing applications running in virtual machines into more modern environment such as a lightweight package with application code together with all dependencies in AWS. Which tool you will prefer for this application? Justify your answer with a neat sketch. Mention the benefits of the chosen service than going with VM.                                                                                                                                                                                                                                      | 10 | 2 | 3 |
| 5. | You are managing a multi-account architecture where an encryption key from Account A needs to be used by resources in Account B for both encryption and decryption. Identify a suitable service in AWS cloud that manages all the cryptographic keys. Also, Account A has set up key policies and IAM policies allowing cross-account access for the role in Account B, and all permissions seem correct. However, when resources in Account B attempt to decrypt data using the key from Account A, the operation fails with an access denied error. What are all the potential reasons for this failure. | 10 | 3 | 3 |

\*\*\*\*\*



# VIT

Vellore Institute of Technology  
(Deemed to be University under Section 3 of UGC Act, 1956)

REG.NO.: 22BEC01009

**SCHOOL OF ELECTRONICS ENGINEERING**  
**CONTINUOUS ASSESSMENT TEST - II**  
**FALL SEMESTER 2024-2025**

SLOT: B2 + TB2

Programme Name & Branch : B.Tech. & BEC, BML  
 Course Code & Course Name : BECE355L & AWS for Cloud Computing  
 Name(s) : Dr. Aparna Mohanty, Dr. Gautam Narayan, Dr. Konguvel E,  
 Dr. Sriharipriya K C, Dr. Sujatha R, Dr. Sumathi G  
 Class Number(s) : VL2024250103217, VL2024250103195, VL2024250103231,  
 VL2024250104000, VL2024250103208, VL2024250103237  
 Date of Examination : 14.10.2024  
 Exam Duration: 90 Minutes  
 Maximum Marks: 50

**General instruction(s):**

- Answer All Questions
- M - Max mark; CO - Course Outcome; BL - Blooms Taxonomy Level  
(1 - Remember, 2 - Understand, 3 - Apply, 4 - Analyse, 5 - Evaluate, 6 - Create)
- Course Outcomes:  
 CO2: Comprehend and differentiate between various AWS core, database services and its applications.  
 CO3: Apply appropriate security and compliance measures for cloud applications.

| Q. No | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | M  | CO | BL |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|
| 1.    | A financial services company plans to deploy a secure online banking app on AWS, including a microservices and a secure database. The company need secure, efficient communication between the software components, with strict access controls to protect customer data. Which AWS service will you suggest for the above use-case and interpret how to implement an isolated network, manage traffic, control internet access, and ensure secure connections between their on-premises data centers and the cloud. <i>- Lambda VPC</i> | 10 | 2  | 3  |
| 2.    | A leading food supply chain company needs to store, process, and manage both structured and semi-structured data in the public cloud and connect it to a data warehouse. Which AWS solution would you recommend, and illustrate how the chosen service will perform with zero ETL approach?                                                                                                                                                                                                                                              | 10 | 2  | 3  |
| 3. ✓  | a. A developer is assigned to build a real-time analytics dashboard for monitoring live user activity on a popular e-commerce platform. The developer has to process and analyze millions of events per second, in real-time. The processed data must be continuously fed into the dashboard for instant insights and stored for later analysis. Select a suitable AWS service to capture, process, and analyze real-time streaming data. Justify your answer for the given application. <i>- Kinesis</i>                                | 5  | 2  | 3  |
|       | b. A healthcare sector is interested to adopt an AWS messaging service that can send messages between the health-care providers and patients on timely updates about their appointments and other hospital related information. Note that the app must notify users across multiple platforms (iOS, Android, email, and SMS) as soon as an update occurs, ensuring no user is left out. Enumerate on how the messages are published to the users of the application. <i>- SNS</i>                                                        | 5  | 2  | 3  |