

**VIT**Vellore Institute of Technology
Approved by AICTE, Ministry of Education, Government of India**School of Electronics Engineering**
Fall Semester 2024-25
Continuous Assessment Test -I**BECE 355L – AWS for Cloud Computing****Slot: B1+TB1****Class Numbers :** VL2024250103227, VL2024250103220, VL2024250103203,
VL2024250103234, VL2024250103215**Date: 26-08-24****Max. Marks: 50****Duration: 90 Mins****Answer ALL the Questions**

Q.No	Questions	Mod.	CO	BL	Marks
1. a.	AWS regions consist of multiple isolated locations that enable organizations to build highly available, fault-tolerant, and scalable applications. What are these locations called? Discuss their key features and their contribution to the robustness of cloud applications.	1	CO1	BL1	05
1.b.	In the shared responsibility model, identify whether AWS service provider or the user is responsible for each of the following tasks given below a. Firewall configuration b. Physical data centre security c. Physical firmware versions d. Encryption of the data in transit e. Managing OS at IaaS	1	CO1	BL2	05
2.a.	Apply an appropriate deployment model that extends on-premise IT infrastructure into the cloud, allowing for the integration of public cloud resources with their internal hardware infrastructure and middleware. Explain the chosen deployment model.	1	CO1	BL3	05
2.b.	Given a dataset for your business, which cloud service would you select to build an application that supports ubiquitous computing and remote monitoring? Justify your choice by analyzing the features, scalability, and overall benefits that the chosen cloud service model offers for your specific use case.	1	CO1	BL3	05

3.	A research institute has been conducting experiments since 2003 and has amassed valuable scientific data of 100 TB as of 2023. Half of this data has been collected over the last 10 years and has not been fully analysed and is stored in HDDs with each year's data occupying 5 TB. The remaining data has been analysed and is archived in magnetic tapes. You have been tasked to transfer all this data to the cloud with the following constraints. The tape data will most likely not be accessed. The HDD data of last two years will be accessed regularly and the rest of the HDD data will be accessed in irregular intervals. As an AWS cloud practitioner, interpret a cost-effective optimized solution using AWS services to carry out this migration flawlessly.	2	CO2	BL3
4.	You are managing an e-commerce website for order processing application on AWS, and your application handles 10 orders per minute with two reserved instances. Due to a weekend sale, several hundred orders have failed and are marked as pending. Apply a suitable cost-effective AWS service to quickly clear these pending orders to ensure faster order confirmation for customers and justify the same.	2	CO2	BL3
5.a.	Compare Amazon Snapshots and Machine images in the context of purpose and usage.	2	CO2	BL2
5. b.	Assume you have deployed a web application for an online shopping platform in AWS cloud. The platform runs various workloads, such as frontend web server, a backend database server, and a machine learning service that provides product recommendations in real time. Infer on the appropriate EC-2 instance family types for the above scenario according to the resource requirements.	2	CO2	BL3