Mid-Semester Test
(EC-2 Regular)

Course No.   : CSI ZG527
Course Title   : CLOUD COMPUTING
Nature of Exam   : Open Book
Weightage   : 35%
Duration   : 2 Hours
Date of Exam   : 13/03/2022 (AN)

No. of Pages	= 1
No. of Questions	*=8*

Note:
1. Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
2. All parts of a question should be answered consecutively. Each answer should start from a fresh page.
3. Assumptions made if any, should be stated clearly at the beginning of your answer.

Q.1   Assume that your colleague comments that the cloud is not secure. Do you agree with this comment? Justify your answer.   [3]

Q.2   Differentiate between a traditional data center and a private cloud. Mention the advantages of adopting a private cloud over a traditional data center. Also, mention the steps involved in implementing a private cloud.   [5]

Q.3   Differentiate between Type 1 and Type 2 Hypervisors? Also, explain how virtual machines created by these hypervisors can access the I/O devices.   [5]

Q.4   What is hardware support for virtualization?. Discuss the role of hardware support for Intel processor virtualization and memory virtualization.   [5]

Q.5   Can we upload objects with a size larger than 5 TB onto Amazon's Simple Storage Service (S3)?. Justify your answer with at least one use case. Also, discuss techniques available for security and access control on S3.   [5]

Q.6   Differentiate between scaling and elasticity. Explain how they both can be achieved using Amazon Web Service (AWS) and also mention the role of CloudWatch.   [5]

Q.7   What are public and elastic IP addresses (in AWS), and provide one use case for each?   [2]

Q.8   Compare the virtualization-based applications and Docker Containerized Applications with respect to boot time and operation speed. Also, differentiate between docker and Docker Swarm.   [5]

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