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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.   Semester: V
Branch: Information Science and Engineering   Duration: 3 hrs.
Course Code: 20IS5PCCLC   Max Marks: 100
Course: CLOUD COMPUTING   Date: 20.09.2023

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may suitably assumed.

UNIT - I

1 a) Depict the layered organization of the cloud stack from physical infrastructure to applications with a neat diagram. **07**

b) Certain features of a cloud are essential to enable services that truly represent the cloud computing model and satisfy expectations of consumers, Highlight the desired features of cloud. **06**

c) Identify the challenges and risks with respect to Data Lock-In and standardization in cloud computing. **07**

OR

2 a) Elaborate the term Dynamic Resource Allocation and Storage Virtualization with respect to VMs. **07**

b) Distinguish between Hot Migration and Cold Migration. **06**

c) Identify the hypervisor which can be deployed on hardware and explain its various types. **07**

UNIT - II

3 a) Describe Virtual Machine life cycle with a neat diagram and steps involved in provisioning Virtual machine. **10**

b) Analyze the Live migration anatomy to depict the transfer of memory and VM state from one host to another considering the suitable algorithm. **10**

UNIT - III

4 a) List the constraints applied for the components, connectors and data elements within a distributed hypermedia system. Discuss. **10**

b) Identify the popular software design pattern used for web applications. Illustrate with a neat diagram. **10**

UNIT - IV

5   a)   Explain the differences between file storage and object storage.   **06**

    b)   Analyze how you choose the cloud storage classes for your data to be stored in the cloud.   **08**

    c)   Discuss Google storage option used to access from anywhere through RESTful interface.   **06**

UNIT - V

6   a)   List and explain different security layers and principle of least privilege in the cloud.   **10**

    b)   Explain the following identities i.e., "platform provides authentication as a service" and "Aware proxy simplifies authorization to Google cloud applications and VM's.   **10**

OR

7   a)   Highlight the best practices used while implementing cloud security.   **10**

    b)   User's data at rest has to be secured in cloud. Identify the encryption mechanism applied by the Google cloud to protect the data at rest.   **10**

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