INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)
Dundigal-500043, Hyderabad

B.Tech VII SEMESTER END EXAMINATIONS (REGULAR) - FEBRUARY 2022
Regulation: R18
CLOUD APPLICATION DEVELOPMENT

Time: 3 Hours   **(CSE)**   **Max Marks: 70**

Answer FIVE Questions choosing ONE question from each module
(NOTE: Provision is given to answer TWO questions from any ONE module)
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

MODULE – I

1. (a) Discuss the characteristics and benefits of cloud computing-based services and applications. **[7M]**

   (b) Briefly explain the overview of software as a service(SaaS) and advantage of SaaS. **[7M]**

2. (a) What is Microsoft Azure? Explain the various components of Windows Azure. **[7M]**

   (b) Explain the following cloud computing applications
   i) Education
   ii) Healthcare. **[7M]**

MODULE – II

3. (a) What is NIST model in cloud computing? Explain the NIST cloud computing reference architecture. **[7M]**

   (b) Describe multi-tier architecture and how each tier works? List the applications of multi-tier achitecture. **[7M]**

4. (a) What is data intensive computing? Explain about parallel computing architecture with an example. **[7M]**

   (b) List the differences and similarities between hybrid cloud and multi-cloudsite. **[7M]**

MODULE – III

5. (a) Explain briefly about desktop and application virtualization with an example. **[7M]**

   (b) Discuss virtualization middleware for scientific cloud computing in open source offerings, do we have to think of consciousness from metaphysical perspective in implementation of it. Justify your answer. **[7M]**

6. (a) Explain in detail the various aspects for the need of virtualization in cloud computing. **[7M]**

   (b) Describe the process and system virtual machines with neat diagrams. **[7M]**

MODULE – IV

7. (a) Explain the policies and mechanisms for resource management in cloud data centers. **[7M]**

   (b) What is borrowed virtual time? Discuss about borrowed virtual time in cloud computing. **[7M]**.

8. (a) What is resource bundling? Explain in detail about combinatorial auctions for cloud resources. **[7M]**

   (b) List and explain the two application scaling strategies in resource management and dynamic application scaling. **[7M]**

MODULE – V

9. (a) What is cloud security? Discuss the various types of attacks in a cloud-computing environment. **[7M]**

   (b) Explain the virtual security services provided in VMM. Discuss in detail about VMM-based threats. **[7M]**

10. (a) Discuss in detail about operating system and virtual machine security. **[7M]**

    (b) Compare the three cloud computing delivery models, SaaS, PaaS, and IaaS, from the point of view of the application developers and users. Discuss the security and the reliability of each one of them. Analyze the differences between the PaaS and the IaaS. **[7M]**

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