Roll No.

Total No. of Pages : 01

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## M.Tech.(IT) (2015 & Onwards)/(CSE Engg.)EI-II (2015 to 2017) (Sem.-2) CLOUD COMPUTING Subject Code : MTCS-206 Paper ID : [72890]

## Time: 3 Hrs.

Max. Marks : 100

## **INSTRUCTION TO CANDIDATES :**

- 1. Attempt any FIVE questions out of EIGHT questions.
- 2. Each question carries TWENTY marks.
- Q1) Define Cloud Computing. Explain, in detail, the architecture of Infrastructure as a Service (IaaS) with detailed description of its components.
- Q2) Define virtualization. How does virtualization helps to implement the cloud services? Describe Virtual Machine Monitor (VMM) and Virtual Box, in detail.
- Q3) a) Describe how Map Reduce can be helpful for simplified data processing on large clusters Also, discuss the features of Apache Hadoop.
  - b) Discuss task partitioning and data partitioning with the help of a suitable example.
- Q4) Explain, in detail, the various components of Platform as a Service (PaaS). Write the pros and cons of various PaaS solution.
- Q5) a) Outline the structure of public, private and hybrid cloud. Also, mention the benefits and limitations of public cloud and private cloud,
  - b) Is data synchronization and data replication necessary for cloud computing? Justify with the help of a suitable application example.
- Q6) a) Differentiate traditional software development from software development for the cloud.
  - b) Define Internet of Things (IoT) and mention its characteristics. Discuss the integration of IoT with Big Data and Cloud Computing.
- Q7) a) Explain the framework and components of Open Stack in detail.
  - b) Describe the CPU management and abstraction techniques using a hypervisor.
- Q8) Write short notes on the following :
  - a) Distributed File System
  - b) Big Data and its V's

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