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MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

II SEMESTER M.TECH. (CSE&CSIS)

END SEMESTER EXAMINATIONS, APRIL 2017

SUBJECT: CLOUD COMPUTING [CSE 5234]

REVISED CREDIT SYSTEM

(25/4/2017)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.

- 1A.** A company needs IT infrastructure for its business critical and non-business critical information processing. Explain the characteristics of the Cloud computing models for each operation suitable for the company. **5M**
- 1B.** With a diagram explain the architecture of Elastic Manager. **3M**
- 1C.** A company interested in Cloud computing is looking for a provider who offers a set of basic services such as virtual server provisioning and on demand storage that can be combined into a platform for deploying and running customized applications. What type of Cloud computing service model fits these requirements? Justify your answer. **2M**
- 2A.** With a diagram explain SDN architecture. **5M**
- 2B.** Why virtualization can be considered as a perfect fit to overcome most operational issues of Cloud service provider? **3M**
- 2C.** Product support professionals repeatedly create complex application environments in order to debug problems reported by customers. How might provisioning in a Cloud computing solution help the product support team's efficiency? **2M**
- 3A.** Describe the differences between Aneka threads and local threads **5M**
- 3B.** Explain the different elements of XML SOAP message. **3M**
- 3C.** A company has decided to leverage the web conferencing services provided by a Cloud provider and to pay for those services as they are used. The cloud provider manages the infrastructure and any application upgrades. Explain this type of cloud delivery model? **2M**
- 4A.** Discuss the role of following components with respect to HDFS architecture **5M**
i) Name Node ii) Data Node iii) HDFS Client
- 4B.** Explain read and write operations with respect to HDFS. **3M**

- 4C.** Write a map reduce programming model to find access frequency of a particular link in the given web log. **2M**
- 5A.** Describe the following data privacy concern in Cloud computing. **5M**
i) Storage ii) Retention & Destruction
- 5B.** With a diagram explain the structure of IDM Wallet for identity management in a Cloud. **5M**