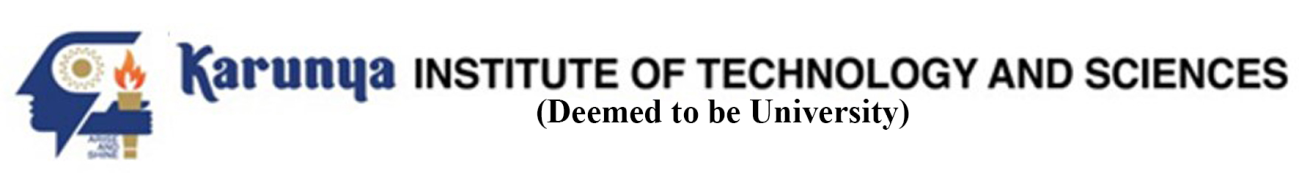
Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **18CS3015** | **Duration :** | **3hrs** |
| **Sub. Name :** | **CLOUD COMPUTING** | **Max. marks :** | **100** |

**ANSWER ANY FIVE QUESTIONS (5 x 16 = 80 Marks)**

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| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | List the type of hypervisors, explain about each type and discuss the different hypervisor design principles. | CO1 | 8 |
| b. | Compare the architecture of KVM and Citrix Xen Server. | CO1 | 8 |
|  | | | | |
| 2. | a. | Explain OpenStack nova system architecture. | CO2 | 8 |
| b. | Classify the different OpenStack block storage service components used to perform the following. Create, delete, list volumes and snapshots. Attach and detach volumes in the virtual machine. | CO3 | 8 |
|  |  |  |  |  |
| 3. | a. | Analyze the need for preemptible VM and describe when organizations choose preemptible VM, limitations, and its concepts. | CO2 | 8 |
| b. | List the guidelines for choosing your app environment in Google App Engine. | CO2 | 8 |
|  | | | | |
| 4. | a. | List the use cases of Amazon CloudFront and elaborate on how to set up a CDN for a web page containing the Java programming language tutorial. | CO2 | 8 |
| b. | Analyze each step run by map-reduce function for a simple word count program. | CO3 | 8 |
|  |  |  |  |  |
| 5. | a. | Relate the design principles of the Hadoop File System with map-reduce function. | CO3 | 8 |
| b. | Discuss the difference between a single tenant and multi-tenant in the cloud. | CO2 | 8 |
|  | | | | |
| 6. | a. | Outline the confidentiality, integrity, and availability concerns of data storage in the cloud. | CO5 | 8 |
| b. | Develop a network topology for the private cloud by addressing the significant security risk factors. | CO5 | 8 |
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| 7. | a. | List the characteristics of the cloud and its benefits. | CO2 | 8 |
| b. | You are tasked with Hadoop cluster deployment. What type of disk management do you choose RAID or JBOD for HDFS file system? Design a two-level networked rack aware Hadoop cluster. | CO4 | 8 |
| **COMPULSORY QUESTION (1 x 20 = 20 Marks)** | | | | |
| 8. | a. | Write the steps to create an Ansible configuration file for the Nginx web server installation using variables and facts. | CO6 | 10 |
| b. | Label the components of Ansible and explain it. | CO6 | 10 |