



## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

**First Semester, M. Tech - Computer Science and Engineering (MCSE)**

**Semester End Examination; Jan/Feb - 2016**

**Cloud Computing**

*Time: 3 hrs*

*Max. Marks: 100*

*Note: Answer FIVE full questions, selecting ONE full question from each unit.*

### UNIT - I

- |      |  |    |
|------|--|----|
| 1 a. | Explain the Benefits and Limitations of cloud computing.   | 10 |
|      | b. Define cloud. With neat diagram explain the components of cloud computing solution.   | 10 |
| 2 a. | List and explain the cloud services with examples for each.  | 10 |
|      | b. Which cloud service is offered by Sales force.com and why is it good for Business? Explain the best way to move to the cloud for a company. | 10 |

### UNIT - II

- |      |   |    |
|------|---|----|
| 3 a. | List the different levels of connectivity needed for cloud to deliver its best resources. Explain any two levels with examples. | 10 |
|      | b. Describe the Design requirements and Design Principles of Amazon Simple Storage Service (S3).                                | 10 |
| 4 a. | What are the features provided by the Quick Books Online to Small Business Owners?  | 5  |
|      | b. List any five features of Bungee Connect Web Application Development and Hasting Platform.                                   | 5  |
|      | c. What are the Services a customer using Skytap can access?  | 5  |
|      | d. Explain the Skytap Migration API with a neat diagram.  | 5  |

### UNIT - III

- |      |  |    |
|------|--|----|
| 5 a. | Define Meta Computer. Explain the different components of Meta - Computer.                                   | 10 |
|      | b. List and explain the requirements of a Grid enabled database.   | 10 |
| 6 a. | List the standards of Grid computing. Explain the Legion Middle ware Project and NSF Middle Wave Initiative. | 10 |
|      | b. Explain the GTA (Globus Tool Kit 4) Architecture along with the importance features of GT4 functionality. | 10 |

### UNIT - IV

- |      |  |    |
|------|--|----|
| 7 a. | Define Cluster. Explain the Basic Architecture of Cluster along with the functionalities that a cluster can offer. | 10 |
|      | b. Explain the design considerations for the front end of a cluster.   | 6  |
|      | c. Write short notes on Meta clusters.   | 4  |

- 8 a. List and explain the classification of cluster programming environment and tools. 10
- b. Explain the Solaris mc and HPVM Project architecture with neat diagrams. 10

**UNIT-V**

- 9 a. List and explain the configurations for high availability in cluster architecture. 10
- b. Explain the performance measures and metrics of a cluster. 10
- 10 a. Explain the functions of a typical Job Management System (JMS). 10
- b. Explain the different strategies for Load Balancing in a Network of Workstations Cluster. 10

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