

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code

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Sixth Semester B.E. Degree Examinations, September/October 2024

CLOUD COMPUTING**(Computer Science & Engineering)**

Duration: 3 hrs

Max. Marks: 100

*Note: 1. Answer any FIVE full questions choosing ONE full Question from each Module.**2. Missing data, if any, may be suitably assumed*

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO:PI)</u>
<u>Module-1</u>			
1.	a. Illustrate with a neat diagram the different types of cloud deployment models.	07	(3:1:1.6.1)
	b. Illustrate with a neat diagram virtualization and its types.	07	(3:1:1.6.1)
	c. Summarize a note on (i) Amazon EC2 (ii) Google App Engine (iii) Salesforce	06	(2:1:1.6.1)
(OR)			
2.	a. Demonstrate cloud computing and discuss the essential characteristics of cloud computing?	07	(2:1: 1.6.1)
	b. Summarize load balancing and the commonly used load balancing algorithms.	07	(2:1: 1.6.1)
	c. Summarize cloud computing services and its applications in Healthcare (ii) Energy system (iii) Education	06	(2:1: 1.6.1)
<u>Module-2</u>			
3.	a. Illustrate with a neat diagram Software Defined Networking architecture and its key elements.	07	(3:2: 1.6.1)
	b. Summarize the compute services offered by different cloud service providers.	07	(2:2: 1.6.1)
	c. Summarize the following (i)Service level Agreement (ii) Billing	06	(2:2: 1.6.1)
(OR)			
4.	a. Illustrate with a neat diagram NFV architecture and its key elements.	07	(3:2: 1.6.1)
	b. Illustrate with a neat diagram open source private cloud software.	07	(3:2: 1.6.1)
	c. Summarize the Identity and Access management services with OAuth example.	06	(2:2: 1.6.1)
<u>Module-3</u>			
5.	a. Illustrate with a neat diagram components of Hadoop cluster.	07	(3:3: 1.6.1)
	b. Illustrate with a neat diagram Software Oriented Architecture.	07	(3:3:1.6.1)

Note: (RBTL - Revised Bloom's Taxonomy Level: CO - Course Outcome: PI- Performance Indicator)

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| c. | Summarize the relational(SQL) storage approach along with its pros and cons. | 06 | (2:3: 1.6.1) |
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| 6. | a. | Illustrate with a neat diagram Hadoop MapReduce2.0/ YARN. | 07 | (3:3: 1.6.1) |
| | b. | Summarize the cloud application design considerations. | 07 | (2:3:1.6.1) |
| | c. | Illustrate with a neat diagram the three different types of Hadoop Schedulers. | 06 | (3:3: 1.6.1) |

Module-4

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| 7. | a. | Develop a python program for launching an Amazon EC2 instance. | 07 | (3:4: 1.7.1) |
| | b. | Develop a python program for launching Google Cloud SQL instances | 07 | (3:4: 1.7.1) |
| | c. | Develop a python program for creating Azure VM. | 06 | (3:4: 1.7.1) |

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| 8. | a. | Develop a python program for reading and writing an Amazon Dynamo DB. | 07 | (3:4: 1.7.1) |
| | b. | Develop a python program for querying a data set with a Big Query provided by Google Big Query. | 07 | (3:4: 1.7.1) |
| | c. | Develop a python program for listing Azure storage services. | 06 | (3:4: 1.7.1) |

Module-5

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| 9. | a. | Summarize the design approaches for IaaS and PaaS service Model. | 07 | (2:5: 1.6.1) |
| | b. | Illustrate with a neat diagram Document Storage App with an example. | 07 | (3:5: 1.6.1) |
| | c. | Develop a program for creating an XML file using python. | 06 | (3:5: 1.7.1) |

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| 10. | a. | Summarize the Django Architecture and steps to create a Django project with an example. | 07 | (2:5: 1.7.1) |
| | b. | Illustrate with a neat diagram Map Reduce App with an example. | 07 | (3:5: 1.6.1) |
| | c. | Develop a program for encoding and decoding JSON file using python. | 06 | (3:5: 1.7.1) |

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