



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

(An Autonomous Institution affiliated to VTU, Belagavi)

Second Semester, Master of Computer Applications (MCA)

Semester End Examination; October - 2022

Cloud Computing

Time: 3 hrs

Max. Marks: 100

Course Outcomes

The Students will be able to:

CO1: Define Basic concept of terminologies of cloud computing.

CO2: Identify the appropriate cloud services for a given application.

CO3: Assess the comparative advantage and disadvantages of visualization Technology.

CO4: Describe resource management policies and its implementation in cloud.

CO5: Discuss various storage systems and security issues with case studies.

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

II) Any **THREE** units will have internal choice and remaining **TWO** unit questions are compulsory.

III) Each unit carries 20 marks.

Q. No.	Questions	Marks	BLs	COs	POs
UNIT - I		20			
1 a.	Explain the architecture of Microsoft Windows Azure.	10	L2	CO1	PO1,2,7,11
b.	List and explain most obvious obstacles of cloud computing.	10	L1,2	CO1	PO1,2,7,11
UNIT - II		20			
2 a.	Illustrate Map Reduce philosophy.	10	L2	CO2	PO1,2,3
b.	Explain the zookeeper coordination service model. List the operations.	10	L2	CO2	PO1,2,3
UNIT - III		20			
3 a.	What is virtualization? Explain layering and interfaces between layers in a computer system.	10	L1,2	CO3	PO2,10
b.	Distinguish between full virtualization and para virtualization.	10	L2	CO3	PO2,10
OR					
3 d.	Explain Intel X-86 hardware support for virtualization.	10	L2	CO3	PO2,10
e.	Explain Xen network architecture.	10	L2	CO3	PO2,10
UNIT - IV		20			
4 a.	Illustrate two level resource allocation architecture.	10	L2	CO4	PO1,2,3,5,8,10
b.	Explain five classes of cloud resource management policies.	10	L2	CO4	PO1,2,3,5,8,10
OR					
4 d.	Explain pricing and allocation algorithm.	10	L2	CO4	PO2,3,4
e.	Explain start-time fair queuing algorithm	10	L2	CO4	PO2,3,4

UNIT - V**20**

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|------|---|----|----|-----|---------|
| 5 a. | Illustrate the configuration of general parallel file system. | 10 | L2 | CO5 | PO2,3,4 |
| b. | Explain the architecture of a GFS cluster. | 10 | L2 | CO5 | PO2,3,4 |

OR

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|------|---|----|----|-----|---------|
| 5 d. | Explain how interactions are happen in NFS client server model? | 10 | L2 | CO5 | PO2,3,4 |
| e. | Explain the Hadoop of cluster using HDFS. | 10 | L2 | CO5 | PO2,3,4 |

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