



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 - 2023

Cloud Computing

Time: 3 hrs

Max. Marks: 100

Course Outcomes

The Students will be able to:

CO1: Identify basic concepts and terminologies of cloud computing.

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

CO3: Analyze the comparative advantages and disadvantages of Virtualization technology.

CO4: Illustrate 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.	Define Cloud Computing. Illustrate how cloud services are delivered?	10	L2	CO1	PO1,2,4,5
b.	Explain the various services offered by AWS.	10	L2	CO1	PO1,2,4,5
UNIT - II		20			
2 a.	How is the central concept of workflow model defined? Explain its attributes.	10	L2	CO2	PO1,2,4
b.	Illustrate the implementation of data and control flow in MapReduce.	10	L2	CO2	PO1,2,4
UNIT - III		20			
3 a.	Describe the importance of Layering. Explain types of interfaces.	10	L2	CO3	PO1,2,4,5
b.	What is Virtualization? Explain its types.	10	L2	CO3	PO1,2,4,5
OR					
d.	Illustrate the working of Virtual Machine Monitor.	10	L2	CO3	PO1,2,4,5
e.	Comprehend between full and para virtualization.	6	L2	CO3	PO1,2,4,5
f.	Indicate the importance of software fault isolation.	4	L2	CO3	PO1,2,4,5
UNIT - IV		20			
4 a.	Explain the policies and mechanisms of cloud resource management.	10	L2	CO4	PO1,2,4,5
b.	Elaborate the structure of a cloud controller.	10	L2	CO4	PO1,2,4,5
OR					
d.	Discuss the design decisions of controllers.	10	L2	CO4	PO1,2,4,5
e.	Explain the desirable properties of Pricing and Allocation algorithms.	10	L2	CO4	PO1,2,4,5

UNIT - V

20

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| 5 a. Elaborate the components of SAN. | 10 | L2 | CO5 PO1,2,4,5 |
| b. Explain the configuration of General Parallel file system. | 10 | L2 | CO5 PO1,2,4,5 |

OR

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| d. Discuss the design issues of Content Delivery Networks. | 10 | L2 | CO5 PO1,2,4,5 |
| e. Explain the architecture of GFS chunks. | 10 | L2 | CO5 PO1,2,4,5 |

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