

Reg. No.

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B.E / B.TECH. DEGREE EXAMINATION, MAY 2023

Sixth Semester

AD18601 – CLOUD COMPUTING: TOOLS AND TECHNIQUES*(Artificial Intelligence and Data Science)***(Regulation 2018 /Regulation2018A)****TIME:3 HOURS****MAX. MARKS: 100**

- CO1** Students should be able to articulate the main concepts, key technologies, strengths and limitations of cloud computing.
- CO2** Students should be able to identify the architecture, infrastructure and delivery models of cloud computing.
- CO3** Students should be able to explain the core issues of cloud computing such as security, privacy and interoperability.
- CO4** Students should be able to choose the appropriate technologies, algorithms and approaches for the related issues.
- CO5** Students should be able to understand the security threats in cloud and security mechanisms.

PART- A (10x2=20Marks)

(Answer all Questions)

	CO	RBT LEVEL
1. Who is responsible for security in IaaS?	1	2
2. Before going for cloud computing platform what are the essential things to be taken in concern by users?	1	4
3. Compare Xen and VMWare.	2	2
4. Distinguish between type 1 and type 2 hypervisors.	2	4
5. List out the different cloud storage levels.	3	1
6. Compare load balancing and auto scaling.	3	4
7. Differentiate between Hadoop 1 and Hadoop 2.	4	1
8. If you have an input file of 350 MB, how many input splits would HDFS2.X create and what would be the size of each input split?	4	3
9. What is the CIA triad?	5	2
10. Compare encryption and encoding.	5	2

PART- B (5x14=70Marks)

		Marks	CO	RBT LEVEL
11. (a)	Discuss the different deployment models in cloud computing.	(14)	1	2
	(OR)			
(b)	Discuss the cloud computing architectures.	(14)	1	2
12. (a)	Elaborate on the data center technologies and discuss the role of virtualization technology in data center technology?	(14)	2	3
	(OR)			
(b)	Discuss the different types of virtualization. Also, compare virtual machine and containers.	(14)	2	3
13. (a)	Elaborate on the different resource replication mechanisms. Discuss the benefits of cross region replication.	(14)	3	3
	(OR)			
(b)	Give a detailed note on the service quality metrics used in SLA to measure the QoS characteristics.	(14)	3	3
14. (a)	Describe Hadoop and its components. How does 'Name node' handles 'Data node' failure in Hadoop Distributed File System?	(14)	4	4
	(OR)			
(b)	Discuss in detail the properties of Big Data. Also, differentiate structured, unstructured and semi-structured data.	(14)	4	4
15. (a)	Discuss the IAM components and policies. What is the importance of it in Cloud?	(14)	5	3
	(OR)			
(b)	Discuss the features of digital signature. How is hashing used in digital signature?	(14)	5	3

PART- C (1x10=10Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	Compare Monolithic and Micro services.	(10)	2	4
