Register Number:……..

KUMARAGURU
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B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2018)

Fifth Semester

ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

U18AII5201 : CLOUD ARCHITECTURE

COURSE OUTCOMES

CO1: Analyze the main concepts, key technologies, strengths, and limitations of cloud
CO2: Analyze and understand various queuing models
CO3: To understand and use the architecture of compute and storage cloud, service, and delivery models.
CO4: Apply the core issues of cloud computing such as resource management and security.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:

PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	Define the interrelationship between cloud computing and data center	CO1	[K_1]
2.	List the advantages of using cloud computing in health care industry	CO2	[K_1]
3.	Analyze the importance of on demand provisioning in cloud computing	CO3	[K_4]
4.	Apply the logic behind Instruction Set Architecture Level and Hardware Abstraction Level in virtualization	CO4	[K_3]
5.	Differentiate SOA and micro service	CO3	[K_2]
6.	List the advantages of UDDI with respect to web services	CO2	[K_1]
7.	Identify the differences between hybrid cloud and outsourced private cloud	CO2	[K_1]
8.	List some of the available cloud services	CO1	[K_1]
9.	Explain about mobile virtual tools	CO4	[K_2]
10.	Explain about NIST security challenges in cloud	CO2	[K_2]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Explain the underlying principles of parallel and distributed computing with respect to the following 1. Shared Memory Architecture 2. Distributed Memory Architecture 3. Hybrid distributed shared memory	8	CO2	[K_2]
	b)	Compare and contrast PAAS, SAAS and IAAS	8	CO3	[K_4]

12.	a)	Examine a disaster recovery method that will help an organization to secure its data in terms of 1. Crisis Management 2. Business Continuity 3. Impact Assessment and recovery	8	CO2	[K_4]
	b)	Explain the aspects of publish subscribe model along with a neat sketch	8	CO4	[K_2]
13.	a)	Build few methods for implementing System of systems and REST in virtualization through HTTP and REST API	16	CO3	[K_3]
14.	a)	Model a NIST cloud computing reference architecture with a neat sketch in which there should be an interaction with the following entities 1. Cloud Consumer 2. Cloud Provider 3. Cloud Auditor 4. Cloud Broker 5. Cloud Carrier	16	CO1	[K_3]
15.	a)	Identify some of the challenges in implementing security standards and suggest some possible ways of deploying the same for any educational sector	8	CO2	[K_2]
	b)	Imagine an organization is interested to implement Hadoop and MapReduce in their sector hence suggest some strategies to be adopted in establishing the same	8	CO3	[K_6]
16.	a)	Survey some of the resource provisioning and resource provisioning methods	8	CO1	[K_4]
	b)	Build a methodology to implement elasticity in cloud for a production industry that implements the following logics 1. Vertical Scalability 2. Diagonal Scalability	8	CO2	[K_3]

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