SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR(AUTONOMOUS)

QUESTION BANK (DESCRIPTIVE)

Subject with Code: Cloud Computing (20CS0537) **Course & Branch**: B.Tech - CSE

Year & Sem: Regulation: IV Year & I Semester (R20)

UNIT –I

INTRODUCTION

1		Explain in detail evolution of distributed computing	**[L2][CO1]**	**[12M]**
2	**a**	Differentiate between parallel and distributed computing Paradigms.	**[L4][CO1]**	**[4M]**
	b	Illustrate the evolution of scalable computing technology	**[L3][CO1]**	**[8M]**
3		List and discuss the technology for network based system	**[L1][CO1]**	**[12M]**
4	**a**	Define cluster computing	**[L1][CO1]**	**[2M]**
	b	Discuss in detail about clusters of cooperative computers with neat diagram	**[L2][CO1]**	**[10M]**
5	**a**	Define grid computing	**[L1][CO1]**	**[2M]**
	b	Explain layered architecture of grid	**[L2][CO1]**	**[10M]**
6	**a**	Discuss the following i) computational grid ii) data grid iii)network grid	**[L2][CO1]**	**[6M]**
	b	List and detail the elements of grid	**[L1][CO1]**	**[6M]**
7	**a**	What is SOA? Describe with its architecture	**[L2][CO1]**	**[6M]**
	b	Explain the Cloud Computing Stack	**[L2][CO1]**	**[6M]**
8		State and Explain various characteristics of cloud computing.	**[L1][CO1]**	**[12M]**
9		Discriminate the Challenges in Cloud Computing.	**[L5][CO1]**	**[12M]**
10	**a**	Define Cloud Computing	**[L1][CO1]**	**[2M]**
	b	Draw and explain the cloud architecture	**[L2][CO1]**	**[10M]**

UNIT –II

SERVICE DELIVERY AND DEPLOYMENT MODELS

1	**a**	Define cloud computing.	**[L1][CO2]**	**[2M]**
	b	Explain in detail about Xaas.	**[L2][CO2]**	**[10M]**
2		Define service model. Determine the service models in cloud computing.	**[L3][CO2]**	**[12M]**
3	**a**	Illustrate in detail Infrastructure as a Service.	**[L3][CO2]**	**[4M]**
	b	Describe in detail about PaaS.	**[L2][CO2]**	**[4M]**
	c	Explain in detail about SaaS.	**[L2][CO2]**	**[4M]**
4		Compare the Iaas and Pass and Saas	**[L4][CO2]**	**[12M]**
5		Explain Briefly about Deployment Models.	**[L2][CO2]**	**[12M]**
6	**a**	Analyze the Public Cloud and Private Cloud.	**[L4][CO2]**	**[6M]**
	b	Write Short note on Hybrid Cloud.	**[L1][CO2]**	**[6M]**
7	**a**	Express Pros in Cloud Computing.	**[L2][CO2]**	**[6M]**
	b	Analyze Cons in Cloud Computing.	**[L4][CO2]**	**[6M]**
8	**a**	Recall a short note on SLA	**[L1][CO2]**	**[6M]**
	b	Explain briefly about types of SLA.	**[L2][CO2]**	**[6M]**
9		Illustrate the Life Cycle of Service Level Agreement with neat diagram	**[L3][CO2]**	**[12M]**
10	**a**	Why SLA is important in cloud computing. Express your opinion.	**[L4][CO2]**	**[6M]**
	b	Identify the Approaches in SLA Management	**[L2][CO2]**	**[6M]**

UNIT –III
VIRTUALIZATION AS FOUNDATION OF CLOUD

1	**a**	What do you understand by Virtualization	**[L1][CO3]**	**[4M]**
	b	Explain in detail different implementation level of virtualization	**[L2][CO3]**	**[8M]**
2		Illustrate the virtualization structures available with neat diagram	**[L3][CO3]**	**[12M]**
3	**a**	Explain in detail types of virtualization available	**[L2][CO3]**	**[8M]**
	b	List out the benefits of Virtualization	**[L1][CO3]**	**[4M]**
4		Compare and explain full virtualization and para virtualization.	**[L4][CO3]**	**[12M]**
5	**a**	Discriminate the Binary Translation with Full Virtualization	**[L5][CO3]**	**[6M]**
	b	Differentiate Full Virtualization and Para Virtualization	**[L4][CO3]**	**[6M]**
6		Describe the CPU Virtualization in detail.	**[L2][CO3]**	**[12M]**
7	**a**	Summarize the Memory Virtualization concept	**[L2][CO3]**	**[6M]**
	b	Illustrate I/O Virtualization with an example	**[L3][CO3]**	**[6M]**
8	**a**	Describe virtual clusters with its advantages	**[L2][CO3]**	**[6M]**
	b	Explain the resource management in virtual clusters	**[L2][CO3]**	**[6M]**
9		Analyse the virtualization for data center automation.	**[L4][CO3]**	**[12M]**
10	**a**	What do you understand by Migrating Applications to Cloud	**[L1][CO4]**	**[4M]**
	b	Interpret Live VM Migration Steps and Performance Effects	**[L3][CO4]**	**[8M]**

UNIT –IV
CLOUD INFRASTRUCTURE SECURITY

1	**a**	Explain about Authentication Methods	**[L2][CO5]**	**[6M]**
	b	Interpret the various Authorization Methods	**[L3][CO5]**	**[6M]**
2		Summarize the details on cloud infrastructure security	**[L2][CO5]**	**[12M]**
3		Discuss the following in detail: a) Network Level Security b) Host Level Security c) Application Level Security	**[L2][CO5]**	**[12M]**
4		Compare the Network, Host and Application Level of security	**[L4][CO5]**	**[12M]**
5		List and describe the common types of attacks happen in Network, Host and Application Levels	**[L2][CO5]**	**[12M]**
6	**a**	Analyze the aspects of data security	**[L4][CO5]**	**[6M]**
	b	Explain about provider data and its security	**[L2][CO5]**	**[6M]**
7	**a**	Describe the Life cycle of identity management	**[L2][CO5]**	**[6M]**
	b	List and Explain the activities supported by IAM	**[L1][CO5]**	**[6M]**
8		Describe in detail about the IAM architecture with neat diagram	**[L2][CO5]**	**[12M]**
9	**a**	List the various factors on which availability of services depend	**[L1][CO5]**	**[4M]**
	b	Illustrate in detail about the availability management on different cloud services.	**[L3][CO5]**	**[8M]**
10		Explain the key issues in the cloud	**[L2][CO5]**	**[12M]**

UNIT –V
MOBILE CLOUD COMPUTING

1	**a**	State the mobile cloud computing definitions by MCC Forum and NIST	**[L1][CO6]**	**[4M]**
	b	Illustrate a typical mobile cloud computing environment	**[L2][CO6]**	**[8M]**
2	**a**	Give the factors that promote the adoption of MCC	**[L2][CO6]**	**[6M]**
	b	State the Characteristics of Mobile Cloud Computing Application	**[L1][CO6]**	**[6M]**
3		Differentiate Cloud computing and Mobile cloud computing	**[L4][CO6]**	**[12M]**
4		Draw the Architecture of mobile cloud computing and explain	**[L1][CO6]**	**[12M]**
5	**a**	List and describe Benefits of mobile cloud computing	**[L1][CO6]**	**[12M]**
	b	Discuss the context management architecture based on IRNA with neat diagram	**[L2][CO6]**	**[6M]**
6		Analyze the challenges of mobile cloud computing at mobile end in detail.	**[L4][CO6]**	**[12M]**
7		Explain the challenges of MCC at cloud end	**[L2][CO6]**	**[12M]**
8		Describe the following: a) Offloading in static environment b) Offloading in dynamic environment	**[L2][CO6]**	**[12M]**
9	**a**	What do Partitioning Strategies mean? How is ADPS implemented for Program partitioning	**[L1][CO6]**	**[6M]**
	b	Explain about general security in mobile cloud computing	**[L2][CO6]**	**[6M]**
10	**a**	List out the applications of mobile cloud computing	**[L1][CO6]**	**[6M]**
	b	Identify few of the open issues still need to be addressed in MCC	**[L1][CO6]**	**[6M]**

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