

Time: 3 Hrs

PES University, Bengaluru (Established under Karnataka Act No. 16 of 2013)

UE18/19CS352

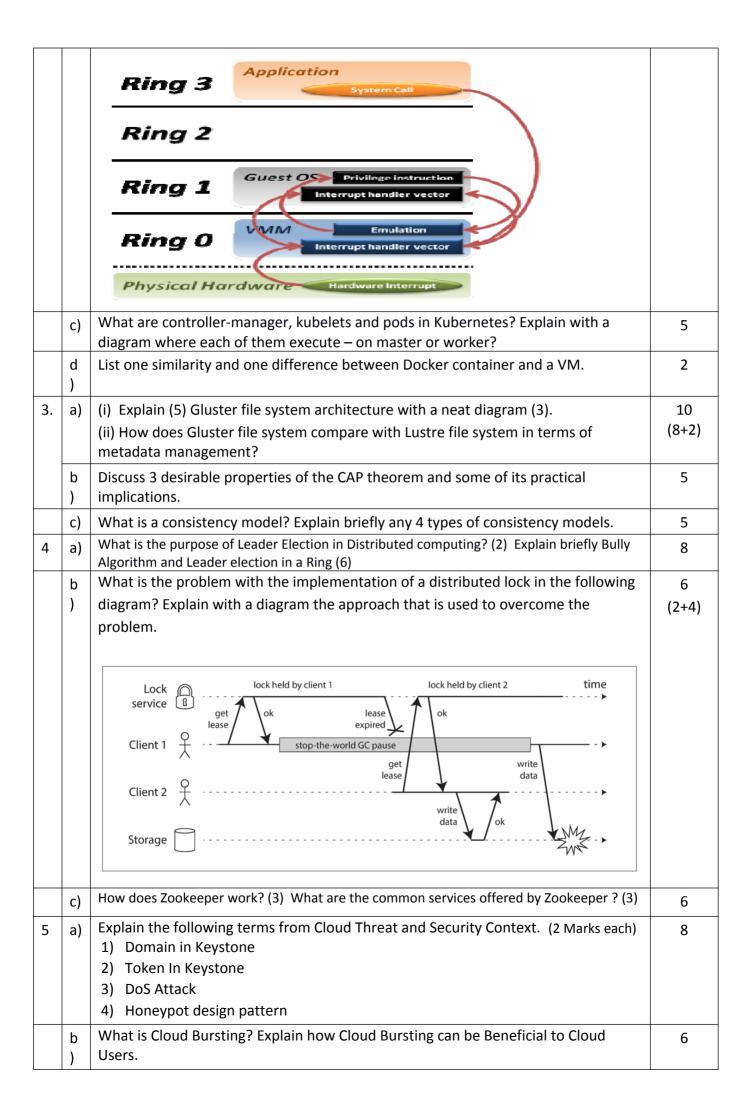
Max Marks: 100

Answer All Questions

MAY 2022: END SEMESTER ASSESSMENT B Tech CSE 6th SEMESTER

UE18/19CS352 - CLOUD COMPUTING

		Tillie. 3 Tils Allswei All Questions Wax Marks. To	,
L.	a)	If you are required to build a Cloud-Ready Application, how will you go about designing and building a cloud application architecture for private or public clouds? Explain 4 key steps.	8
	b)	Describe with the help of examples various service models and deployment models of cloud computing.	7
	c)	Three applications are developed on the cloud – App1 is accessed using a browser on the cloud, App2 is installed on virtual machine and App3 is built using a cloud based database service. Classify the three apps into IaaS, PaaS and SaaS models with proper justification. Also, give a real life example of IaaS, PaaS and SaaS platform.	5
	a)	Consider a situation where you are required to apply any one of these types of virtualization	8 (4*2N
		Full Virtualization, Bare Metal virtualization, Host based virtualization and Para Virtualization	
		to different implementation technologies. Mark the appropriate virtualization type for each requirement and justify your answer.	
		(i) Run some dedicated applications on the VMs created on the guest OS and run some other applications on the host OS directly	
		(ii) Run special APIs requiring substantial OS modifications in a VM	
		(iii) Run non-critical instructions on the hardware directly while critical instructions are discovered and replaced with traps into the VMM to be emulated by software.	
		(iv) Install the virtualization software directly on the hardware	
	b)	Explain what are rings and what do the arrows in the following image represent?	5



c) What is multi-tenancy and mention its benefits in Cloud Computing. (2 Marks)

You are asked to design a multitenant database for two universities —

HighTechUniv and GlobalUniv to store information about students. HighTechUniv wants to store USN, student names and email ids while GlobalUniv wants to store USN, student names and grades. Design a multitenant database using the preallocated column method for the same. (4 Marks)