Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER III (NEW) – EXAMINATION – WINTER-2016

Subject Code: 3735102 **Date:25/10/2016**

Subject Name: Data Center Management

Time:02:30 pm to 05:00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Define Enterprises level virtualization and explain its benefits. List various enterprise level virtualization techniques.	**07**
	(b)	Explain different components of Data center security checklist.	**07**
Q.2	**(a)**	Explain about access control model of virtual machine security, and how it can be implemented.	**07**
	(b)	What is SNMP and how it helps to maintain uptime in data center.	**07**
		OR	
	(b)	Explain FCoE (Fibre Channel over Ethernet) protocol with an example.	**07**
Q.3	**(a)**	What is common use of clusters in corporate data center environment? Explain Load balancer and its significance to maintain uptime.	**07**
	(b)	Explain Point Load and Static Load in detail. Give an example for each type of load.	**07**
		OR	
Q.3	**(a)**	Differentiate between raised floor and non-raised floor in detail?	**07**
	(b)	Explain the differences between a Network Operations Center and a Security Operations Center in detail.	**07**
Q.4	**(a)**	Explain different Data Recovery Techniques to protect virtual machine data.	**07**
	(b)	Why is data center outsourcing becoming an increasingly attractive option, according to some market watchers?	**07**
		OR	
Q.4	**(a)**	Explain in detail the differences between a Storage Area network and Network Attached Storage solutions.	**07**
	(b)	What are the steps to be initiated for connectivity of virtual machine to NAS storage?	**07**
Q.5	**(a)**	What are the key benefits achievable through effective Tiered data center management and why it is required?	**07**
	(b)	Using Bob MacFarlanes formula for determining cubic feet per minute (CFM), how many CFMs will be required to cool the following configuration (do not include correction factor): 10 blades at 300 Watts each Entering air is 50 degrees Exiting air is 80 degrees.	**07**
		OR	
Q.5	**(a)**	Explain Disaster recovery and security planning that deals with protecting datacenter uptime.	**07**
	(b)	Design a Solution for hosting a website with Disaster recovery solution with neat diagram, using following components. Webserver, Database Server, Reverse Proxy, Firewall, Backup Server.	**07**

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