

Name:			
Enrolment No:			
UPES End Semester Examination, May 2023			
Course: B Tech CSE+IT Infra Program: Backup and DR Course Code: CSEG4005P		Semester: VIII Time : 03 hrs. Max. Marks: 100	
Instructions: Attempt all questions.			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	What are the key distinctions between capacity-centric and access-centric hard drives?	4	CO1
Q 2	What is the difference between reliability and availability?	4	CO3
Q 3	Explain the concepts of hot swapping and hot plugging and illustrate their relation to high availability.	4	CO3
Q 4	Classify the types of disasters that can potentially affect an organization.	4	CO4
Q 5	Analyze the key components of a disaster recovery plan.	4	CO5
SECTION B (4Qx10M= 40 Marks)			
Q 6	Analyze the different types of backup methods, their advantages, and their disadvantages.	10	CO1
Q 7	Analyze the concept of high availability clustering and evaluate its advantages. How does this approach ensure business continuity?	10	CO2
Q 8	Explain the phases of disaster recovery planning.	10	CO4
Q 9	Analyze the benefits and challenges of implementing high availability and virtualization in disaster recovery planning.	10	CO5
SECTION-C (2Qx20M=40 Marks)			
Q 10	XYZ Corporation is a multinational company with operations in various countries. The company's data center in one of its locations recently experienced a major disaster due to a severe storm, resulting in the loss of critical data and infrastructure. As the IT manager of the company, you have been tasked with developing a disaster recovery plan to ensure that the company's critical systems and data are protected and can be recovered in the event of a similar disaster.	20	CO4/CO 5

	<p>Develop a comprehensive disaster recovery plan for XYZ Corporation, outlining the phases of planning, the DR team, recovery service levels, DR strategy, implementation of the strategy, testing of the plan, and deployment topologies. In your plan, include the use of high availability, virtualization, replication, and the DR technology tree. Also, explain the importance of DR and the terminologies involved, such as availability and networking/communication. Finally, provide recommendations for conducting DR drills and improving the DR plan based on lessons learned from the recent disaster.</p>		
Q 11	<p>Explain the various disk storage technologies and their characteristics. Also, discuss the different types of disk drives and their use cases. Additionally, provide a comparison between disk systems and tape storage.</p> <p style="text-align: center;">OR</p> <p>Design a high-availability solution for a virtual environment. Discuss the components that would be required and explain how they would work together to achieve high availability. Consider the different layers of the virtual environment and how each layer would be made highly available.</p>	20	CO1/CO 3