UPES

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

Programme Name: B.Tech-CSE (HI)   Semester : V

Course Name   : Storage Technology Foundation   Time   : 03 hrs

Course Code   : CSIB255   Max. Marks : 100

Nos. of page(s)   : 1

Instructions: All sections are compulsory

SECTION A

S. No.	Write short notes on the following	Marks	CO
Q 1	Explain the architecture of NAS	4	CO1
Q 2	Identify the drawbacks of RAID 5 & RAID 4	4	CO2
Q 3	Explain the NAS Management Concerns	4	CO3
Q 4	Discusses the properties of FC-SAN	4	CO3
Q5	What is the need of Business continuity	4	CO4

SECTION B

	All questions are compulsory	Marks	CO
Q6	Explain the Architecture of SAN Fabric	10	CO4
Q7	Identify and explain IP SAN with diagram.	10	CO3
Q8	Give the detailed architecture of NAS device	10	CO3
Q9	Identify the basic criteria's of Business Continuity. Or Differentiate between Synchronous & Asynchronous Replication	10	CO5

SECTION-C

	Explain with diagrams	Marks	
Q10	Bank Of Uttrakhand is about to launch its banking process with primarily 26 branches all over the states. The bank would have 250 initial employees and estimated 50,000 customers with 15% increase in customer every year. The number of employees would increase by 1% of total increase customer. Q) Estimate the user number in the next 5 years and design a Data Center Architecture	20	CO5
Q11	Design a business continuity plan for the above scenario. OR Critically analyze the Business continuity plan for the above scenario	20	CO4

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SECTION A

S. No.	Write short notes on the following	Marks	CO
Q 1	Differentiate between NAS & SAN	4	CO1
Q 2	Explain the benefits of RAID5 over RAID4	4	CO2
Q 3	Describe the Data Center Management Concerns	4	CO2
Q 4	Ascertain the drawbacks of IP-SAN	4	CO3
Q5	Characterize the concept of disaster recovery	4	CO4

SECTION B

	All questions are compulsory	Marks	CO
Q6	Distinguish the requirement parameters for implementing SAN over NAS	10	CO4
Q7	Identify and explain file system architecture of NAS	10	CO4
Q8	Illustrate the working principle of LVM Based Remote Replication. Or Illustrate the working principle of Array Based Remote Replication	10	CO4
Q9	Design a SAN network for UPES. (assume any basic requirement)	10	CO5

SECTION-C

	Explain with diagrams	Marks	
Q10	UPES is about to launch its secondary campus with 2000 students and 300 employees with estimated increase of students to 50% and 3% of employee every year Q) Estimate the user number in the next 5 years and design a Data Center Architecture	20	CO5
Q11	Design a business continuity plan for the above scenario. OR Critically analyze the Business continuity plan for the above scenario	20	CO4