

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2020

Course: Back Up and DR
Program: B. Tech CSE CCVT, OSS, IFM
Course Code: CSIB 493

Semester: 8th
Time 03 hrs.
Max. Marks: 100

Instructions: The paper contains 3 sections where section A contains 6 questions of 5 marks each, section B contains 5 question of 10 Marks each and section C has 2 question of 20 marks each. Write answer with precision. The word limit for section B is 300 Words and section C is 800 Words.

SECTION A

S. No.	This section consists of Multiple choice question single correct.	Marks	CO
Q 1 is the last line of defense? a). Disaster b). Back Up c). Army d). None	5	CO3
Q 2	Arrange the following is increasing order of RPO and RTO Warm site, Hot site, cold site a). Warm>Hot>Cold b). Hot>Warm>Cold c). Cold>Warm>Hot d). Cold>Hot>Warm	5	CO5
Q 3	Which of the following is NOT a component of HA architecture? a). Cluster aware application b). Shared Storage c). Heartbeat interconnection d). Single point of failure	5	CO4
Q 4	Pick the correct storage hierarchy in terms of increasing access time a). cache< ram< magnetic disk< tape drive b). registers< l1 cache<l2 cache <l3 cache < dynamic memory c). both d). none	5	CO1
Q 5	A network administration wants his network backbone with 3 routers to be 2 fault tolerant. How many router (working + standby) will be required by the network administrator. a). 3 b). 6 c). 9 d). 12	5	CO4
Q 6	Which of the following is correct about RAID – 6 a). Min no of disks 4 b). Storage efficiency = $(n-2) * 100/n$	5	CO4

	c). both a and b d). None		
SECTION B			
Q 7	There is a tradeoff between the Cost of Recovery and Impact of disaster. How to establish equilibria among these two factors? Explain the role of RPO and RTO to locate that equilibrium point.	10 [5+5]	CO2
Q 8	Define Availability of a system. Calculate the MTBF and MTTR of the system with 120 days of uptime on the machine and 96 hrs. total hours of downtime on the machine and total number of breakdown is 16. Also calculate the availability.	10[5+5]	CO4
Q 9	When an organization makes full back up on Sunday, differential backup on Wednesday and increment back on the remaining days at 6PM. How the recovery will be done? a). When a disaster occurs on Tuesday at 2:00 PM b). When a disaster will occur on Thursday at 9:00 PM	10 [5+5]	CO3
Q 10	Compare and contrast between disaster recovery and business continuity.	10	CO3
Q 11	Explain the role of redundancy in achieving fault tolerance.	10	CO4
SECTION-C			
Q 10	For any organization maintaining the continuity of its business, reputation and growth requires good amount of planning. There are some set of predefined strategies for the same is known as business continuity planning i.e. BCP. a). Provide the requirements with justification for an educational institute which also provides online and blended education with proper justification? b). Discuss in detail the 5 phases of BCP with emphasis of BIA.	20 [10+10]	CO2
OR	a). Describe the HDD (magnetic disk) briefly. Explain the concept of deleting a file and formatting the disk drive. b). How DR is performed. Describe briefly its role in creating better DR solution.	20 [10+10]	CO1