U.S.N ☐☐☐☐☐☐☐☐☐☐

P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belgaum)
Seventh Semester, B.E. - Computer Science and Engineering
Semester End Examination; Dec. - 2015
Information Storage and Management

Time: 3 hrs   *Max. Marks: 100*

Note: Answer any **FIVE** full questions, selecting at least **TWO** full questions from each **part**.

PART - A

1 a.	List and explain the basic functionality and key characteristics of Data center elements.	10
b.	Define ILM. Explain ILM implementation and benefits.	10
2 a.	Explain different Raid level with respect to their differences and were they are put into use.	6
b.	Analyze how many disks are required by an application were we are going to implement raid 5 and IOPS required by application is 2T bytes and 1800 IOPS, we have available disks of 140 GM and IOPS 140 handled by each disk, consider 70% utilization.	6
c.	Explain the different components of an intelligent storage system.	8
3 a.	Write a note on :	
	i) SCSI - 3 Architecture	12
	ii) SCSI - 3 Client Server Model.	
b.	With frame format explain FC frame in detail.	8
4 a.	Elaborate the differences between NAS and SAN.	8
b.	Analyze the different components of the NAS and NAS-I/O operation.	8
c.	Describe briefly FCIP and FCOE.	4

PART - B

5 a.	Illustrate the features and benefits of CSA.	10
b.	Explain storage virtualization challenges and its types.	10
6 a.	Analyze the term MTBF, MTTR and RTO.	9
b.	With diagram, describe BC planning lifecycle various stages.	11
7 a.	Explain two basic modes of remote replication.	10
b.	Describe the various purposes of local replicas.	8
c.	List the different techniques used for storage array based replication.	2
8 a.	What are the attribute to be considered while designing storage security frame work? Explain.	10
b.	Explain the different categories of storage management activities.	10

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