ME (Comp) Sem II

25/05/17

Choice based

T6432 / T0363A ELECTIVE I DATA STORAGE & RETRIEVAL

Q.P. Code :13687

[Time: Three Hours] **[Marks:80]**

Please check whether you have got the right question paper.

N.B: 1. Question.No.1 is compulsory.
2. Attempt any three questions out of remaining.
3. Figure to the right indicate marks.

Q1 a Explain Information Lifecycle Management. 05

b Define and describe Recovery Time Objective 05

c An application specifies a requirement of 200GB to host a database and other files. It also specifies that the storage environment should support 5,000 IOPs during its peak processing cycle. The disks available for configuration provide 66GB of usable capacity, and the manufacturer specifies that they can support a maximum of 140 IOPs. The application is response time sensitive and disk utilization beyond 60 percent will not meet the response time requirements of the application. Compute and explain the theoretical basis for the minimum number of disks that should be configured to meet the requirements of the application. 05

d What are the different techniques of indexing a document? 05

Q2 a An application has 1,000 heavy users at a peak of 2 IOPs each and 2,000 typical users at a peak of 1000 IOPs each, with a read/write ratio of 2:1.Calculate IOPs requirement for RAID3, RAID5 and RAID6. 10

b Explain FC-AL and FC-SW connectivity. 10

Q3 a Discuss NAS along with its components. 10

b Explain storage data traffic over TCP/IP. 10

Q4 a Explain Copy-on-Write Frozen Image technology. 10

b Explain document surrogates and their usefulness in detail. 10

Q5 a Explain in detail about Object Storage and Retrieval in CAS with example. 10

b Discuss the problems with Boolean retrieval system. 05

c What do you mean by stemming? Explain. 05

Q6 Write short note on (**any two**)

a Boolean Based Matching. 10

b Read and write operations with cache. 10

c Soft and Hard zoning. 10