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Question Paper Code: 31921

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Elective

Computer Science and Engineering

01UCS902 - INFORMATION STORAGE MANAGEMENT

(Common to Information Technology)

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Differentiate between structured and unstructured data. Give Example.
2. State the function of R/W head when reading and writing the data on the platter.
3. List the factors that affect NAS performance at different levels.
4. How does the file level virtualization ensure non-disruptive file mobility?
5. What is the purpose of performing operation backup, disaster recovery and archiving?
6. Differentiate between synchronous and asynchronous remote replication.
7. What are the essential characteristics of cloud computing?
8. What is cloud computing? List its benefits.
9. Define storage security framework.
10. Differentiate between Intra array storage tiering and Inter array storage tiering.

PART - B (5 x 16 = 80 Marks)

11. (a) Discuss in detail the core elements of data center infrastructure. Also describe about the key characteristics of data center elements. (16)

Or

- (b) Briefly describe the functionality of RAID levels 1 through 5 and its significance. (16)

12. (a) Explain fiber channel architecture with respect to its protocol stack, FC frame and FC data. (16)

Or

- (b) Explain the process of data storage and retrieval in content addressed storage system. (16)

13. (a) Discuss the effects of a source failure in a three-site replication for the following implementations:

- (i) Multihop – Synchronous + Disk buffered
- (ii) Multihop – Synchronous + Asynchronous
- (iii) Multitarget (16)

Or

- (b) Describe backup topologies in backup environment and network attached storage environment. (16)

14. (a) Explain in detail about cloud deployment models with suitable example. (16)

Or

- (b) Discuss about cloud migration and its challenges. (16)

15. (a) Discuss in detail about monitoring and managing storage infrastructure. (16)

Or

- (b) Explain the implementation of information lifecycle management with neat diagram. (16)