Question Paper Code : 70389

M.E./M.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2019

Elective

Computer Science and Engineering

CP 5076 – INFORMATION STORAGE MANAGEMENT

(Common to M.E. Computer Science and Engineering (with Specialization in Networks)

(Regulations 2017)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. With the advancement of computer and communication technologies, the rate of data generation and sharing has increased exponentially. ? Justify your answer with suitable points.

2. List the various factors that contributing the growth of digital data.

3. Mention the various layers in the SCSI communication model.

4. Represent the major categorization of intelligent storage systems.

5. Name the benefits of NAS.

6. Represent the various topologies for iSCSI connectivity.

7. Mention the five stages of BC planning lifecycle.

8. Name the various Backup Technologies and their pros and cons.

9. Represent the various issues that are addressed by storage virtualization solution.

10. List the different forms of virtualization.

PART – B   (5×13=65 Marks)

11. a) Depict in detail about data in information storage management also brief the different types of data with suitable diagram.

(OR)

b) Explain briefly about the evaluation of storage technology and architecture with neat sketch.

12. a) Discuss in detail about the various logical components of the host with suitable sketch.

(OR)

   b) Write short notes about Zone bit recording in disk drive components.

13. a) Explain in detail about major components of Storage Area Networks (SANs).

(OR)

   b) Discuss in detail about Network-Attached Storage (NAS) implementations with neat diagram representation.

14. a) Describe about the Business Continuity (BC) Planning Lifecycle with suitable diagram.

(OR)

   b) List out and brief about the steps involved in Backup and Restore Operations with necessary sketch.

15. a) Explain in detail about various types of storage virtualization with neat sketch.

(OR)

   b) Discuss in detail about Storage Security Domains.

PART – C   (1×15=15 Marks)

16. a) Acme Corporation is trying to decide between an integrated or a gateway NAS solution. The existing SAN at Acme will provide capacity and scalability. The IT department is considering a NAS solution for the Training department at Acme for training videos. The videos would only be used by the training department for evaluation of instructors. Pick a NAS solution and explain the reasons for your choice.

(OR)

   b) Develop a checklist for auditing the security of a storage environment with SAN, NAS, and iSCSI implementations. Explain how you will perform the audit. Assume that you discover at least five security loopholes during the audit process. List them and provide control mechanisms that should be implemented to eliminate them.