

**R13**

Code No: 118ET

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year II Semester Examinations, April - 2018****STORAGE AREA NETWORKS****(Common to CSE, IT)****Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART - A****(25 Marks)**

- 1.a) Define data storage. [2]
- b) What are the logical constructs of a physical disk? [3]
- c) What is intelligent storage system? [2]
- d) Write about RAID 6. [3]
- e) Discuss about impact of down time. [2]
- f) Define Disaster recovery. [3]
- g) What is data backup? [2]
- h) Why do we need replication technology? [3]
- i) What are the advantages of Virtualization technology? [2]
- j) What is storage virtualization [3]

**PART - B****(50 Marks)**

- 2.a) Describe in brief about the Key protocols and concepts used by each component.
- b) Discuss in brief about the role of each element in supporting business activities. [5+5]

**OR**

- 3.a) Define Data center? What are the Core elements of a data center infrastructure?
- b) Describe in brief about the physical components of a disk drive. [5+5]

- 4.a) Differentiate between FC-SAN and IP-SAN topologies.
- b) Explain in brief about High-level architecture and working of an intelligent storage system. [5+5]

**OR**

- 5.a) Explain in brief about the Architecture of FC-SAN.
- b) Write about the network storage options for different application environments. [5+5]

- 6.a) Differentiate between RTO and RPO.
- b) Describe in brief about Identification single points of failure in a storage infrastructure and list solutions. [5+5]

**OR**

- 7.a) Differentiate between business continuity (BC) and disaster recovery (DR).
- b) What are the advantages and disadvantages of RPO? [5+5]

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- 8.a) Describe in brief about data replication technologies.  
b) Draw the architecture of data backup technology.

[5+5]

OR

- 9.a) Write about different back-up technologies.  
b) What is the role of replication technology in ensuring information availability?

[5+5]

- 10.a) What are the limitations of file level virtualization technology.  
b) What are the key areas to monitor in a data center?

[5+5]

OR

- 11.a) Describe in brief about block-level and file-level virtualization technologies.  
b) Describe in brief about the Critical security attributes for information systems.

[5+5]

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