

COURSE CODE	COURSE TITLE	L	T	P	C
1152IT140	Cloud Storage Infrastructures	3	0	0	3

CLOUD STORAGE INFRASTRUCTURES

Unit I

Virtualized Data Center Architecture : Cloud infrastructures; public, private, hybrid. Service provider interfaces; Saas, Paas, Iaas. VDC environments; concept, planning and design, business continuity and disaster recovery principles. Managing VDC and cloud environments and infrastructures.

Unit II

Information Storage Security & Design : Storage strategy and governance; security and regulations. Designing secure solutions; the considerations and implementations involved. Securing storage in virtualized and cloud environments. Monitoring and management; security auditing and SIEM.

Unit III

Storage Network Design: Architecture of storage, analysis and planning. Storage network design considerations; NAS and FC SANs, hybrid storage networking technologies (iSCSI, FCIP, FCoE), design for storage virtualization in cloud computing, host system design considerations.

Unit IV

Cloud Optimized Storage: Global storage management locations, scalability, operational efficiency. Global storage distribution; terabytes to petabytes and greater. Policy based information management; metadata attitudes; file systems or object storage.

Unit V

Information Availability Design : Designing backup/recovery solutions to guarantee data availability in a virtualized environment. Design a replication solution, local remote and advanced. Investigate Replication in NAS and SAN environments. Data archiving solutions; analyzing compliance and archiving design considerations.

TEXT / REFERENCES BOOKS

1. Greg Schulz 2011, Cloud and Virtual Data Storage Networking, uerbach Publications [ISBN: 978-1439851739]
2. Marty Poniatowski, Foundations of Green IT [ISBN: 978-0137043750]
3. EMC, Information Storage and Management [ISBN: 978-0470294215]
4. Volker Herminghaus, Albrecht Scriba,, Storage Management in Data Centers [ISBN:978-3540850229]