

Information Technology : Storage as a Service (R-2021)

(2 Hours)

[Total Marks: 60]

- N. B.: (1) All questions are compulsory.
(2) Make suitable assumptions wherever necessary and state the assumptions made.
(3) Answers to the same question must be written together.
(4) Numbers to the right indicate marks.
(5) Draw neat labeled diagrams wherever necessary.
(6) Use of Non-programmable calculators is allowed.

Q.1) Attempt any 3 of the following

15 marks

- a) What is data center? Explain key characteristics of data center.
- b) Explain different factors affect disk driver performance.
- c) What is data? Give the difference between structured and unstructured data.
- d) Explain storage architecture in detail.
- e) Discuss about VMware ESXi.

Q.2) Attempt any 3 of the following

15 marks

- a) What is Zoning? Explain its types in detail.
- b) Explain in detail intelligent storage system with its components.
- c) What is Cache? Explain Cache Management in detail.
- d) Explain the concept of high-end storage systems.
- e) What is mesh topology? Discuss different advantages of mesh topology.

Q.3) Attempt any 3 of the following

15 marks

- a) List and discuss different factors affecting Network Attached Storage (NAS) performance.
- b) What is Object-based Storage Devices (OSD)? Explain with its architecture.

- c) Discuss in detail General Purpose Servers verses Network Attached Storage (NAS) Devices.
- d) What is unified storage? Explain how data is accessed from unified storage.
- e) What is Business Impact Analysis (BIA)? What are different set of Business Impact Analysis tasks.

Q.4) Attempt any 3 of the following

15 marks

- a) Give the difference between synchronous replication mode and asynchronous replication mode.
- b) Write about asynchronous mode of remote replication.
- c) Write a note on remote replication and migration in a virtualized environment solution.
- d) What is replication? Explain Local replication in detail.
- e) Discuss pointer based virtual replication.

Q.5) Attempt any 3 of the following

15 marks

- a) List and discuss different cloud challenges.
- b) What is cloud computing? Explain different characteristics of cloud computing.
- c) Write a note on Network-Layer firewalls.
- d) Elaborate the concept of SaaS (Software-as-a-service).
- e) Explain the concept of Storage Tiering in detail.
