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**AS-434**

**M.Sc. (Computer Sc.) II Semester (New)**

**Examination July 2019**

**INFORMATION STORAGE MANAGEMENT**

Paper - MCSC-204

[Time Allowed : Three Hours] [Maximum Marks : 85]

Note : Attempt all questions.

**Section - A**  
**Objective Type Questions**

1 × 10 = 10

Q.1. i) Life cycle of information system is also called

- (a) Mini data life cycle
- (b) Meta data life cycle
- (c) Micro life cycle
- (d) Macro life cycle

ii) Which RAID type does not use parity for data protection?

- (a) RAID-1
- (b) RAID-4
- (c) RAID-6
- (d) RAID-5

iii) What is the most basic level of storage

- (a) SAN
- (b) DAS
- (c) NAS
- (d) ISCSI

iv) To decide on a backup strategy for your organization which of the following should you consider

- (a) RPO (Recovery Point Objective)
- (b) RTO (Recovery Time Objective)
- (c) Both RPO and RTO
- (d) None

(3)

v) Which is the key management metrics.

- (a) Thresholds
- (b) Availability
- (c) Capacity
- (d) All the above

vi) Storage management comprises of

- (a) SAN management
- (b) Data protection
- (c) Disk operation
- (d) All of the mentioned

vii) SMI - S standard uses

- (a) Java RMI
- (b) CIM - XML/HTTP
- (c) CORBA
- (d) Net

(4)

viii) Which one of the below is measured by MTBF?

- (a) Tolerance
- (b) Life time
- (c) Reliability
- (d) Quality

ix) The solution to the problem of reliability is the introduction of

- (a) Aging
- (b) Scheduling
- (c) Redundancy
- (d) Disks

x) Preparation of disk for subsequent file storage is classified as

- (a) Disk format
- (b) Disk address
- (c) Disk footer
- (d) Disk header

### Section - B

#### Short Answer Type Questions

5 × 6 = 30

Q.2. What do you understand by information life cycle. Explain.

OR

Explain in brief about the evolution of storage technology and architecture.

(5)

Q.3. Write a short note on different levels of RAID and compare them.

OR

Explain the components of an intelligent storage system.

Q.4. Differentiate between DAS, SAN and NAS technologies. <http://www.onlinebu.com>

OR

What are the security and limitation of DAS?

Q.5. What do you understand by backup and disaster recovery? Explain.

OR

Discuss the security concern in backup environment.

Q.6. What are the key requirement for data center elements? Explain in brief.

OR

Describe the benefits of using virtual tap library over physical tapes.

(6)

Q.7. What do you understand by industry management standards? Explain in brief.

OR

What do you understand by key management metrics? Explain.

Section - C

Long Answer Type Questions

5 × 9 = 45

Q.8. Explain briefly the following:

- i) Data and its types
- ii) Information
- iii) ICM benefits
- iv) Hot sparing

OR

What do you understand by storage infrastructure? What are the components of a storage infrastructure?

Q.9. Discuss various factors that affect the performance of disk driver?

OR

Discuss the impact of random and sequential I/O in different RAID configuration.

(7)

Q.10. What is NAS? Explain how the performance of NAS can be affected of the TCP window size at the sender and receiver are not synchronized.

OR

Discuss in detail the different forms of virtualization.

Q.11. Write about the architecture of backup recovery and the different backup recovery topologies.

OR

What is data center? And give brief account on key metrics to monitor for different components in a storage infrastructure and key management task.

Q.12. Explain CAS architecture in detail. Also explain its advantages.

OR

Explain failure Analysis with respect to business continuity.

